



AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 7. No. 16 }
WEEKLY. }

BALTIMORE, MAY 30, 1885

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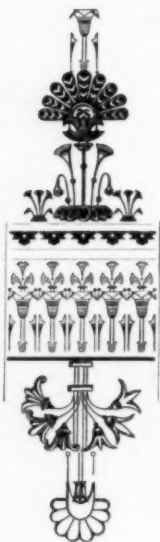
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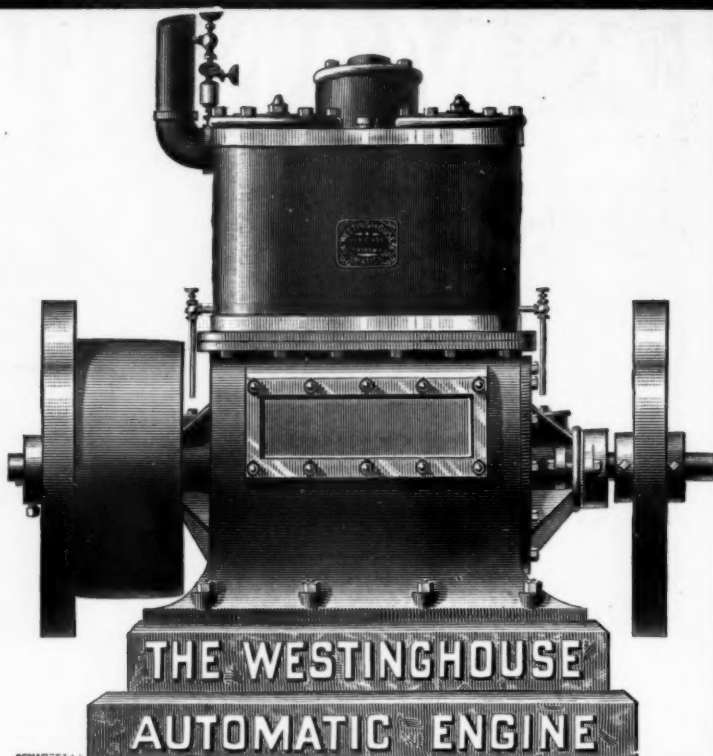
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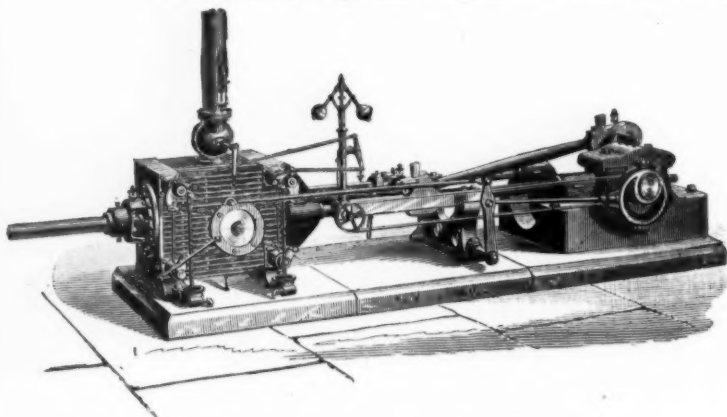
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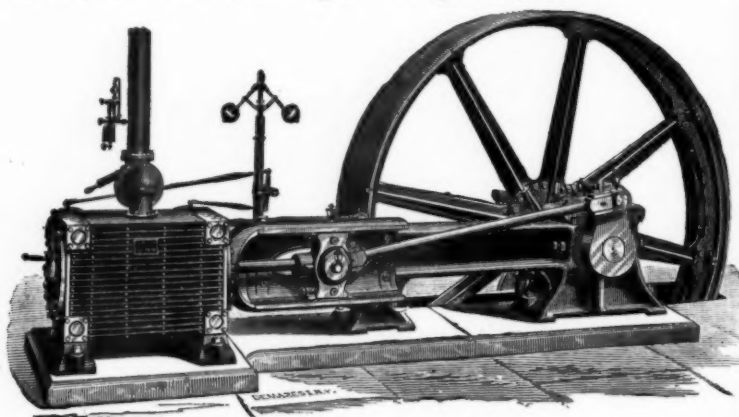
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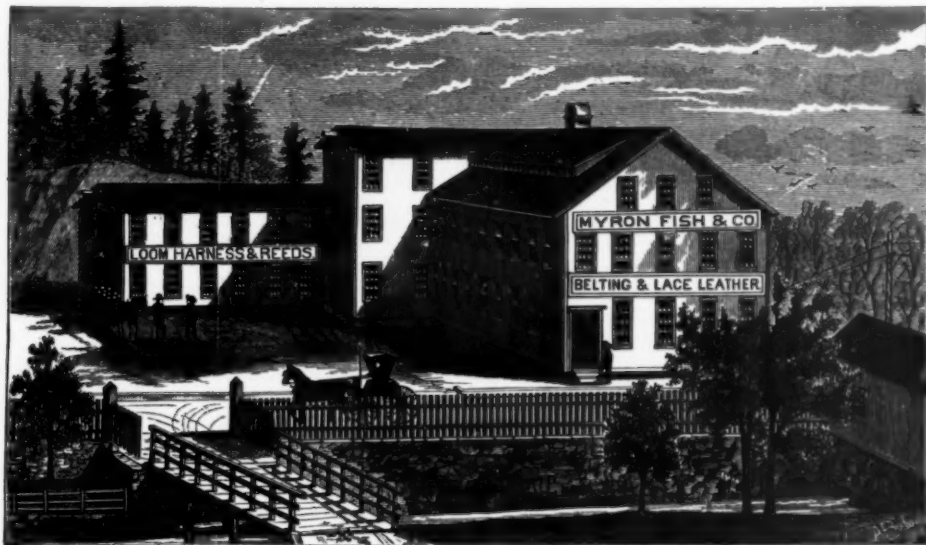
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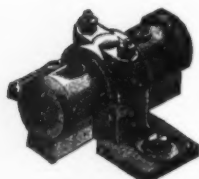
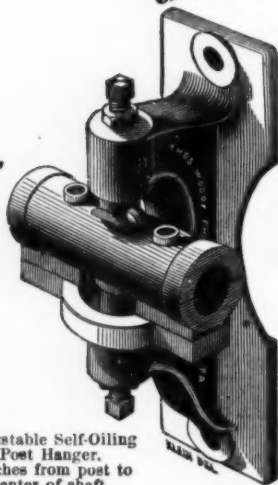
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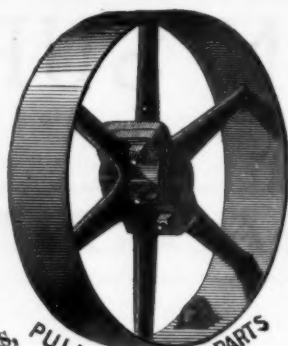
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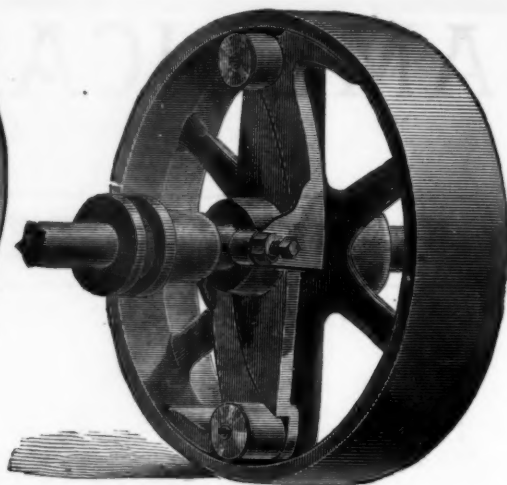
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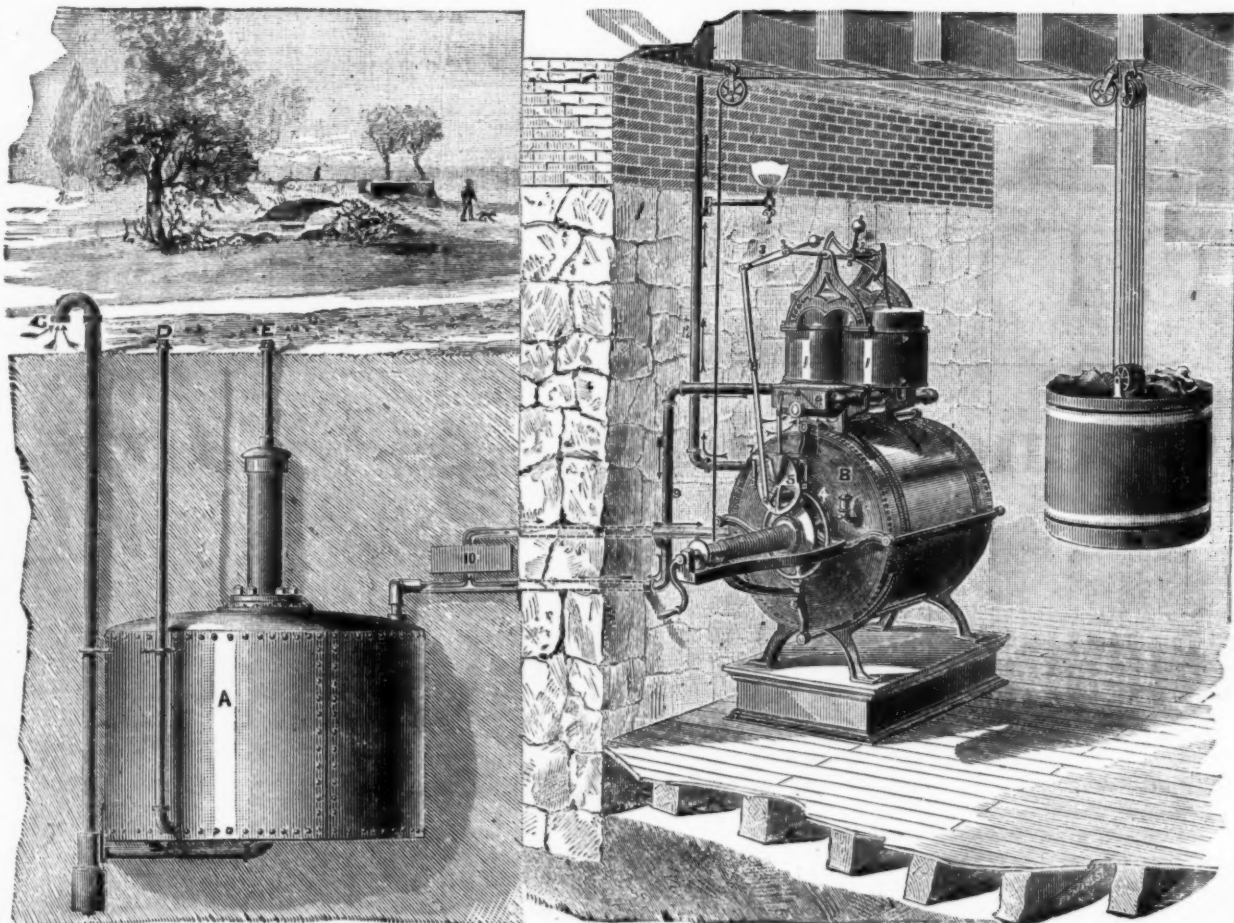
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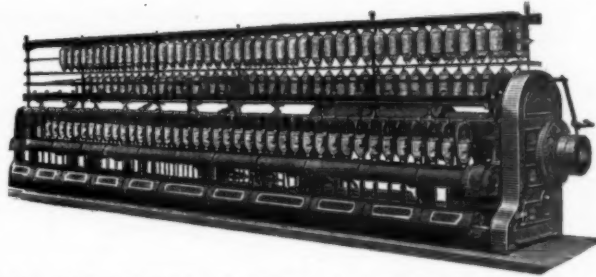
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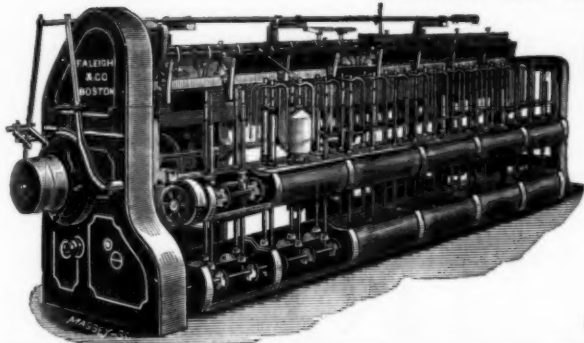
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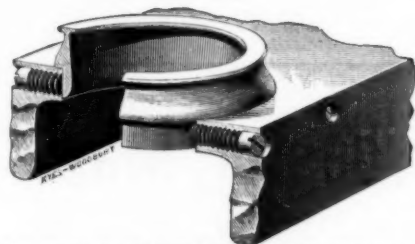
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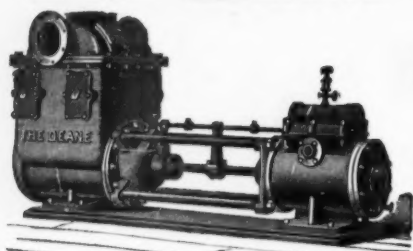
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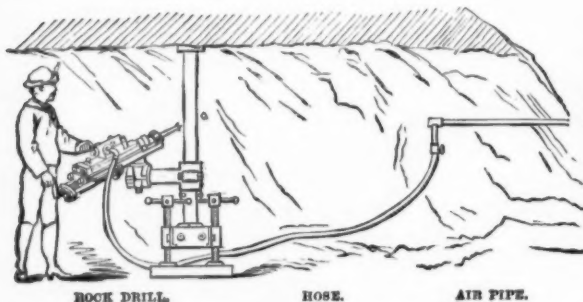
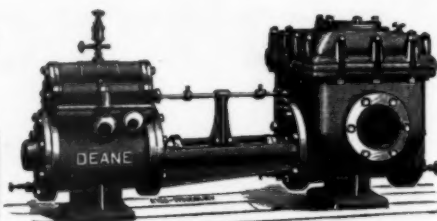
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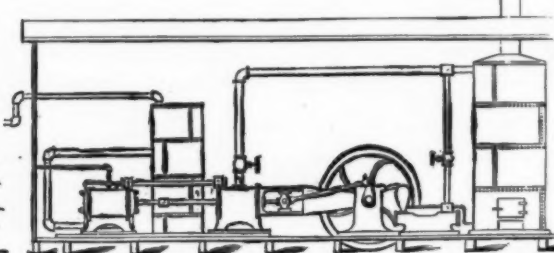
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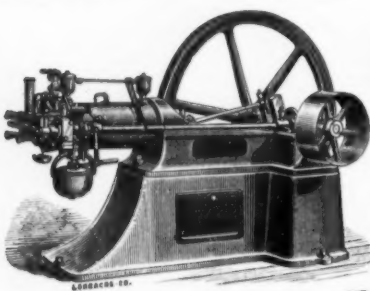
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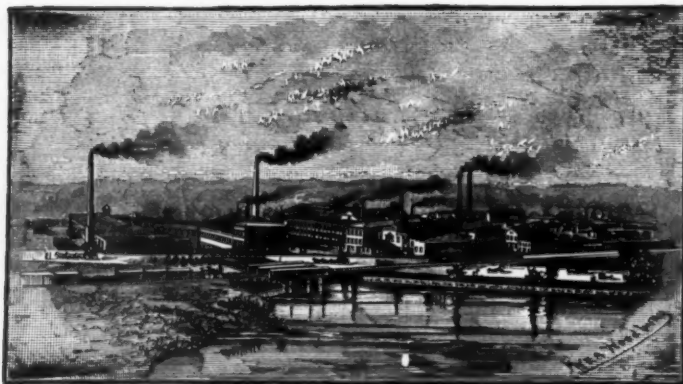
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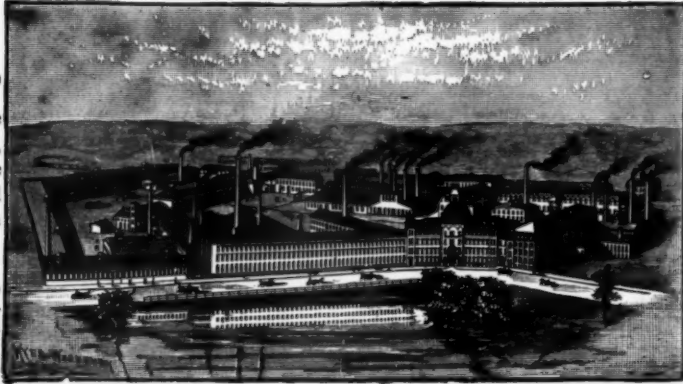
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BALTIMORE, MAY 30, 1885.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.

THE Chief of the Bureau of Statistics, in his tenth monthly statement for the current fiscal year of the imports and exports of the United States, reports that the excess of the value of exports over imports of merchandise was as follows: Month ended April 30, 1885, \$4,145,176; four months ended April 30, 1885, \$52,747,618; ten months ended April 30, 1885, \$162,096,351; twelve months ended April 30, 1885, \$155,959,352. The total value of the imports of merchandise during the twelve months ended April 30, 1885, was \$590,836,102, and during the preceding twelve months \$680,454,400—a decrease of \$89,618,307. The total values of the exports of merchandise for the twelve months ended April 30, 1885, were \$746,795,454, and for the twelve months ended April 30, 1884, \$750,758,350—a decrease of \$3,962,896.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the **BALTIMORE MANUFACTURERS' RECORD**. We are always prepared to furnish proof of our claims as to circulation.

Notwithstanding the general complaint of dull times, there is considerable activity in the organization and establishment of new industrial enterprises in the Southern States. There are indications that the rapid development of that section during 1884 will be fully equalled, if not greatly surpassed, by the progress of 1885. It is also gratifying to note that there is a wide diversity in the industrial growth of the Southern States, and that while the depression in the cotton trade has temporarily stopped the building of new cotton mills, the energy of the people is being turned into other lines of manufacturing.

During the last two weeks our Construction Department has contained the particulars of the organization of a large number of important enterprises. In Alabama we find that Mobile is, according to letters received by us from the Montgomery Oil Works, and from D. H. Caswell & Co., of Nashville, to have two new cotton seed oil mills; Birmingham has a new \$50,000 incorporated company to manufacture churns, and the secretary informs us that the manufacture of these goods will be commenced immediately; the Anniston Car Works will enlarge their capital \$40,000, with a view of starting up these important works again to their full capacity; a \$100,000 mining company has been incorporated in Birmingham to continue the mining operations of a successful private firm; at Broken Arrow in the same State, a new coal mine has been opened at a heavy expense to enlarge the output of the Coosa Coal & Coke Co., which will add 500 tons a day to the coal production of this company. In Florida, Tavares is to have a new planing mill and wood-working factory and probably a foundry and machine shop; Seville has a new saw, planing and shingle mill; Orlando is to have two new mills. Apalachicola is organizing an ice factory company, and the money has been nearly all secured; Eustis is building a \$10,000 ice factory; Leesburg has ordered machinery for another; and Pensacola is doubling the capacity of her ice factory; Key West has a new box factory; Mannfield, Pinecastle, Winter Park, Bayard and other places, new saw mills; Auburndale, a sash and door factory company preparing to build, and Orlando a brick company being organized, while new railroads and big hotels are almost too numerous to mention.

In Georgia several important companies have just been organized. At Dalton there is a \$100,000 mining company; at Atlanta a \$200,000 brick company to succeed two private firms, which will have a capacity, so they inform us, of 60,000,000 bricks a year; Towaliga has a chair factory and saw mill under construction; Barnesville has ordered ma-

chinery for manufacturing furniture; Atlanta is to have a railroad wood-work shop for repairing and building cars, and a tin ware factory is also being built in the same place; Lifsey's Store has ordered machinery for a grist mill; Newnan is to have a saw mill to take the place of one lately burned; and Jasper has a \$20,000 cotton mill about finished.

Kentucky, as usual, shows up with a full list of new enterprises. In Louisville, a \$1,000,000 company to manufacture traction cable machinery, a \$60,000 company to manufacture whiting, &c., a \$200,000 silver mining company, and a \$10,000 manufacturing company have been organized during the two weeks under review; Covington has organized a gasoline stove manufacturing company; at Cloverport an English company have purchased coal property which they propose to develop; Frankfort is to have a large saw and planing mill in place of the \$10,000 mill lately burned; Uniontown has a tile factory and Henderson brick works.

Louisiana has an iron mining company and other projects in contemplation, but not yet fully decided upon; Monroe, in that State, is to have a machine shop as soon as it can be erected; Donaldsonville has a new saw mill. In Maryland, extensive machine shops are to be built in Baltimore, while a saw mill has just been completed in Snow Hill. Mississippi has a new cotton compress company organized at Greenville, while there is some probability of a \$25,000 compress at Yazoo City.

In North Carolina there are many new industries projected. Wilton has a new saw mill, to which a grist mill will shortly be added; Elmwood will have saw mill and shuttle-block factory to replace the one lately burned; Asheville has a broom factory; a Haw River materials are being gathered for a large cotton mill to be erected as soon as business improves; Glen Alpine Station has saw and planing mill and shuttle-block factory under construction; at Palo Alto a saw and grist mill will be built immediately, to take the place of the \$6,000 mill lately burned; at Newberne work has been commenced on a \$25,000 canning factory; while in mining operations there is great activity. South Carolina has a machine shop and foundry at Laurens nearly completed; a \$35,000 bent-wood furniture company that will at once build a large factory, and other smaller enterprises. Tennessee has a coal and coke company, capital \$30,000 at Webster, a stave and barrel factory at Chattanooga, a \$10,000 tanning company in Nashville, a \$10,000 flour mill company now being organized in Maryville, and a marble quarrying company in Knoxville. Texas has a \$30,000 flour mill company at Lancaster, a \$50,000 cotton-seed oil mill and ginning company at Denison, a 75-barrel flour mill contracted for at Anderson, a mill and gin under construction at Burns, a \$30,000 flour

mill company at Corsicana, a machine shop at Dallas, a 200-barrel corn mill and elevator at the same place, and an extensive limestone quarry at Bluffton, besides several extensive machine shop, lumber and compress companies reported just prior to the two weeks with which we are now dealing.

In Virginia a large tobacco factory company has just been formed to occupy a big factory in Richmond; a broom factory has been started at Blacksburg, a tobacco factory company at Liberty, two tobacco factories, and probably three, at Danville, a grist mill at Leesburg, a mining company that has purchased a gold mine for \$10,000, which will be developed, and smaller enterprises in other places. West Virginia has organized an iron fence and machine company in Charleston, a \$600,000 electric light company, a \$100,000 storage power and spring motor company, and a gas saving governor company.

It will be seen from the foregoing that, not including the mills and factories to be started by private firms, the capital stock of the companies incorporated during these two weeks foots up over \$2,500,000.—In view of the general dullness in business, the South may well be congratulated upon the industrial activity that the preceding statements indicate, and we may naturally anticipate that when there is a revival in business, the South will show a still more wonderful activity in the development of her manufacturing, mining and railroad interests. The list of new enterprises as given in the foregoing includes simply what is to be found in the record of two weeks only, as published in our Construction Department May 16 and 23.

A New Industry for the South.

For some time past Charleston, S. C., has had a bent-wood furniture factory, but its operations have been limited by the lack of sufficient capital. A company has now been organized, with a subscribed capital of \$35,000, to erect a large 2-story factory 35x240 feet in Columbia, S. C., to manufacture the finest quality of bent-wood furniture. The president, Mr. R. G. Chisolm, of Charleston, writes us that the company expect to turn out 200 chairs daily, besides other bent-wood furniture equal to the finest imported. The manufacture of a high-grade specialty in the furniture line like this is a decided advance in the industrial growth of the South, and demonstrates the fact that the manufactures of that section are not to be confined simply to the production of the coarser goods.

THE president of the Adams Cotton Mills, Montgomery, Alabama, writes us:

"We are much pleased with your valuable journal, and the work it is doing for the South. Our city and section is making rapid progress. The city particularly is on a regular 'boom'; property is enhancing in value daily and changing hands continually."

The Exposition.

[Special correspondence BALTIMORE MANUFACTURERS' RECORD.]

NEW ORLEANS, LA., May 23, 1885.

As the Exposition draws near to its close it is very gratifying to learn that the first and most important object of its existence has been obtained—the building up of the industries of the South. From time to time the BALTIMORE MANUFACTURERS' RECORD has recorded the successful planting of colonies in the different Southern States, and the investments of large sums in coal and iron mining and in the manufacture of cotton, wood and iron products. The commissioners of each State have pleasing accounts to give of the benefits their respective States have gained by the exposition of their various advantages, and there is reason to believe that the next six months will show an increase in Southern wealth that will greatly exceed the very remarkable advance seen in 1884.

The secondary object of the South in holding this Exposition, and perhaps the most important feature of the great show in the eyes of the country at large, was to create new markets in which to dispose of the surplus manufactured goods, which surplus the rapid increase of Southern manufactures may soon swell to an alarming extent, unless new markets can be found. It is this consideration which lends so much interest to the Mexican and Central American exhibits. Guatemala, British Honduras and Spanish Honduras have each sent full exhibits of their natural wealth, and it is only necessary to examine them carefully to see the great inducements that we have offered us in establishing fuller trade with them. Spanish Honduras offers us the finest mahogany, rosewood, cedar, and other wood of softer, lighter fibre, many of them being now seen in this country for the first time; 250 different specimens are shown. British Honduras shows a log of mahogany 23 feet long, which squares 3 feet 2 inches, and a cedar log 22 feet in length; a boat called a "dory," made from a solid log of mahogany, which wood the natives use in preference to any other for boats, because it is not liable to be destroyed by the boring of the worms which infest the waters of that country and rapidly destroy boats built of softer wood. The root of the mahogany tree when polished is very beautiful.

The agricultural productions of the Central American States, with the exception of rice, sugar and tobacco, are very different from those exhibited by the United States; they are india-rubber, spices, wild or tree cotton, with specimen of cloth spun and woven by hand, coffee and cocoa, dye-woods in infinite variety, medicinal herbs, including quantities of sarsaparilla, and the tropical fruits, which at present form the chief exports from Central America to New Orleans. Five regular steamers are now employed bringing coconuts, plantains and bananas to this city from Spanish Honduras, or Free Honduras, as it should be called. This plucky little State bids fair to outstrip the other States of Central America. With a population of 500,000, she has ten colleges, and two universities, and numerous public schools, which institutions have sent creditable samples of their work to the Exposition, 1,500 miles of telegraph communication, and the construction of railroads into the interior is rapidly building up this country. The coffee plantations are increasing in size and productiveness, and sugar planting is prospering and requires fewer replantings than in Louisiana. The fibre samples exhibited here are fine and very strong, and British Honduras exhibits Henequen fibre suitable for ropes, which grows wild in the swamps.

That these Central American States are cursed with a deadly climate, has taken so firm a hold on public opinion as to be hard to eradicate, and is to be attributed to the fact that until lately the coast country was the only portion that was well known. In

the interior the land rises in plateaus until a temperate and delightful climate is found beneath a tropical sun. Guatemala exhibits coffee raised 5,000 feet above the sea, and fine wheat grown at an elevation of 4,500 feet, and white beans which grew 8,000 feet above the sea. At an elevation of 5,000 feet rice, tea, pepper and castor oil beans are grown; also a flat bean called patate. At present the total value of the Central American commerce is only \$24,428,000, but it is fast increasing, and is well worth the fostering attention of the South, and particularly of New Orleans. These States need improved machinery of every kind, even the farming implements in use there being primitive, and as the interior is opened up by railroads the demand for luxuries of all kinds will largely increase.

Mexico has made an exhibit here that speaks well for the enterprise of her government, and which raises that country in the estimation of every one who examines it. The Mexican Government's appropriation of \$200,000 has been spent to great advantage. Two handsome buildings, one for the accommodation of the Mexican soldiers, officers and band, and built in Mexican fashion, around an open court yard, and one after the Moorish style of architecture, for the mineral display, ornament the grounds of the Exposition, whilst in the Main Building the Mexican Government has decidedly the most thorough and perfectly arranged exhibit there. Every industry practiced in Mexico is illustrated by samples of its products. The curiously and richly decorated hats, bridles and saddles attract a great deal of attention. Furniture beautifully carved by hand and the baskets and pottery of the natives are shown; curious prehistoric relics and idols are there, and specimens of all the manufactured goods now in use among them. The bright colors of the cloth and the rich ornamentation of the shoes indicate a taste brighter than ours. The agricultural display is full, and consists of the usual semi-tropical products to be found in our Southern States, and most of the tropical growths of Central America, extending into the South of Mexico. The Mexican mineral display in the beautiful building devoted to it, is one of the most interesting things to be seen here, although the colored lights from the stained glass windows throw a false tint upon them all. When the building is lit at night by the electric light in the roof, is the best time to view this collection, as the pure white light gives each specimen its true color. The solid silver mound sent to the Exposition by Mexico, weighing 5,640 pounds, and valued at \$114,000, is a good index to the liberal style in which this government has conducted its display. The art gallery is embellished by the best paintings Mexico possessed, and the collection is very interesting, as it is so arranged as to give a panorama of the art history of Mexico, dating from the seventeenth century up to the present time. The stamp of the old Spanish ecclesiastic style is upon the earliest and best, which includes a descent from the cross in which a Spanish monk is assisting. Some of these pictures are worthy of careful notice, particularly "Moses with Joshua and Hur holding up his hand." The face of Moses is powerful and grand. The women of Mexico sent to Women's Department a collection of beautiful work. The lace and gold and silver embroideries are greatly admired. The city of Mexico and New Orleans will soon be closely connected by the completion of the main line of the Mexican National Railroad, (Palmer & Sullivan,) making the distance by rail only 1,600 miles. Should the company build, as they propose to do, a line from Galveston to Laredo, the distance will be further shortened by 200 miles. It is to be hoped that Mexico will prove a valuable neighbor to the New South. The total value of the foreign commerce of Mexico is \$55,000,000, and we ought to be able to command the greater part of it. South America is con-

spicuous by its absence from the Exposition. Brazil alone of all the South American countries is here represented, and she only exhibits coffee. The trade of this empire is worth \$215,061,000, and if New Orleans can secure the coffee trade of Brazil with the United States, the city would be greatly benefited. The United States uses more coffee per capita than any country except Switzerland, and the Brazilian coffee is fast becoming the most popular in this country.

Brazil claims that the quality of the Rio coffee has been so greatly improved that now her best Rio is sold at high prices under other names. Chemical analysis shows that the Brazilian coffee is richer in caffeine than any other variety. Although the price has steadily decreased in all the markets of the world, the production has greatly increased, and the dealers attribute the decline in price to the superior facilities of transportation afforded by railroads, which threw one year's crop upon the market before the preceding crop was sold.

Col. Speed, the Commissioner-General of the American Exhibition in London, informs me that \$20,000 has just been raised in the young State of Nebraska that she may be fittingly represented in London next year. The States besides Nebraska which have already made provision for exhibits at London are New York, Texas, Florida, Tennessee, Kentucky and California. Col. Speed counts with absolute certainty, however, from assurances he has received, that North Carolina, Idaho, Oregon, Georgia, West Virginia and Pennsylvania will all send full exhibits. The other States will certainly follow.

L. A. R.

Items of Interest from Alabama.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., May 25, 1885.

Everything in business circles is moving along fairly well—not a rush, but in a quiet, substantial manner. Manufacturers are doing very well for the season of the year. It is said the Sloss Furnace Co. has a contract with a Philadelphia firm to furnish them with 4,000 tons of pig iron, at better prices than they have been getting. Manufacturers say pig iron is stiffening, and they look for better prices in the near future. Furnaces are about all running; they ought to do it when they pay from 80 to 90 cents per ton for ore, \$1.15 per ton for coal, and \$1.00 per day for labor. Some contracts have been made at furnaces for iron at \$11.50 per ton. While there is not a great deal of profit at this price, it kills the report that it costs \$12 per ton to make iron in the Birmingham district. The furnace at Brierfield, Ala., has shut down for the present; the capacity of this was only forty tons per day. The nail factory there is running on half time; they are now making 300 kegs of nails per day, while the capacity of the works is 600 kegs per day. Brierfield nails f. o. b. at the works sell at \$2.10 per keg; they find a market for all they are now making. It is estimated that 200 kegs of nails per day are consumed in Birmingham. This matter should receive attention at the hands of manufacturers and iron men, as a factory could be gotten up here for \$20,000 or \$30,000, and at the same time have a fine home market. The iron men of this section want enterprises here that will consume and utilize their iron. There is not as much attention paid to this as there should be. Sending away products and buying them back in a different shape is where the injury comes in. We have numerous industries here, but nothing that will consume the 400 tons of pig iron per day that is made here daily.

The report has been current here sometime that Mr. John Thomas, of Hokendauqua, Pa., has given out contracts to build two furnaces near Birmingham, and that Eastern capitalists had joined him, putting \$400,000 in cash as an offset for the value of his mineral land. Mr. Thomas was in

Birmingham some time ago, when a daily paper here made the statement mentioned above; he denied this two or three different times; the paper said recently Mr. Thomas had overcome the hindrances that prevented him some time ago. A party from Pennsylvania have been looking over this section, and have made arrangements to bore for oil. They have left the matter of leasing lands to bore on with a real estate man here, and will return after a short period, when doubtless the work will go on. Mr. H. F. DeBardeleben, one of the leading capitalists here, in connection with other capitalists, has been planning for some large business operations in the way of furnace erections, &c., but each, it seems, wanted a controlling interest, consequently could not agree. It has been said repeatedly on the street that Mr. DeBardeleben would go to Anniston, Ala.; whether there is any truth in the report or not, I can't say, but his business interests here are so large it seems it would be no easy matter to leave them.

TRADE GENERALLY.

Trade generally is dull, but there seems to be some improvement over the past few weeks. Wholesale merchants of all classes are not crowded with orders and business, but are doing very well, better now than in November and December. Retail men are doing only fair business, and in a small way. Buildings are continually going up notwithstanding the depression of the money market. One bank building is being erected, while brick is on the spot for another. A number of stores, dwelling houses, &c., are under headway. All this building gives employment to a great many men. Contractors, mechanics, brick masons, plumbers, &c., are all doing well, while the street improvements give employment to a good number of ordinary laborers.

IN GENERAL.

Lands around Birmingham are very high; farming and gardening lands from 1½ to 2 miles from the city are held at from \$100 to \$200 per acre, and choice places at even more. Rent for stores is too high. Hotels are doing well. There is a floating population here that cannot be found anywhere else in the South, and the town is full of strangers, prospectors, sharks, &c., nearly all the while. A Pennsylvania man remarked the other day it looked more like a Pennsylvania oil town than any place he ever saw; he says he has seen nearly every iron district in the world, but this country beats any he ever saw; he also says he can make Bessemer steel of our pig iron.

Work in a Georgia Mine.

LOUISVILLE, KY., May 23, 1885.

Editor Manufacturers' Record:

The Falls City & Georgia Mining Company started their mill plant about two weeks ago under the most favorable auspices. The company own 202½ acres of land about one mile from Villa Rica, Ga., on the Georgia Pacific Railroad; have 80 acres of fine farm land, 40 acres timber and 62½ acres of mineral land, through which runs a fine gold-bearing quartz vein from 12 to 15 feet wide. Their mill and general outfit is as complete as any in the State—have a 25 horse-power engine and 30 horse-power boiler, a crusher and 10-stamp mill made by J. Wilkes, of Charlotte, N. C.; they have also two of Imlay's Concentrating Tables for sulphuretted ores, should they appear; also one of Clark's Patent Amalgamating Machines, from which no fine gold escapes. This last machine is a late invention made by Louisville, Ky., parties. Their shaft is down 60 feet now, double compartment, and timbered in the very best manner. They have struck two feet of the vein in the bottom of the shaft now, which mills \$10 per ton. The mill is running day and night and has a capacity from 20 to 24 tons. The water being somewhat troublesome, they have one of the Hooker-Colville Steam Sinking Pumps, which discharges 8,000 gallons water per hour and does it splendidly. The whole property is under superintendency of Mr. Clark Watkins, an old experienced miner from Colorado and New Mexico.

T. C.

Atlanta's Commercial Convention.

SOUTHERN OFFICE,
BALTIMORE MANUFACTURERS' RECORD,
ATLANTA, GA., May 25, 1885.

The National Commercial Convention that has closed its labors in Atlanta has proven to be a body whose origin, purposes and labors are worthy of attention in your journal.

The convention was called for the purpose of discussing grave questions of commercial interest. It was meant, of course, to locally help this live and progressive city. The idea originated here, and the funds for the concern, some \$4,500, were subscribed by Atlanta business men. Notices were sent to over 3,000 newspapers. A representative was sent to visit leading cities North, West and South. Invitations to all of the chief cities were transmitted for delegations to be appointed. Committees of public spirited citizens were selected, who zealously worked in carrying out their respective duties. There was a general Executive Committee and committees of information, entertainment, reception, &c. The most important committee, next to the general Executive Committee, was the Information Committee, under the chairmanship of Mr. J. G. Oglesby, which got up and distributed a handsome pamphlet, portraying Atlanta and Georgia.

The body met on the 19th and adjourned on the 21st, being in session 3 days. Mr. Philo Parsons, of Detroit, was elected permanent chairman. The discussions were marked by ability and evidently careful preparation. The speeches were full of pith and information, and directly to the point.

Four leading subjects were selected for discussion—foreign commercial treaties, a national bankrupt law, the suspension of silver coinage, and a national commission for controlling railroads. The convention, after full argument, decided as follows on these important questions:

1. In favor of extending our foreign commercial treaties to reciprocity.
2. In favor of a national bankrupt law.
3. In favor of the temporary suspension of the coinage of silver.
4. Against a national railway commission to control railroad transportation.

Mr. Burwell, of Louisiana, made an admirable speech on the first matter, as also did Mr. Root, of Kansas, who has held the place of United States Minister to Chili, and who warmly urged the need of our increasing our commercial relations with the South American States.

The subject of national control of railway transportation was discussed by ex-Senator John B. Gordon and Gen. A. R. Lawton, about whom so much has been said in connection with the Russian mission. Gen. Gordon argued in favor of the right of Congress, under the constitution, to organize a commission, but did not discuss what should be the scope of the organization. Gen. Lawton argued against the control of railroads and their property by such a commission, and his view carried the convention.

The greatest diversity of opinion existed upon the subject of a national bankrupt law, and the vote of the convention in favor of the passage of one was by a bare majority; the cities taking decided ground against it.

Some other matters were decided upon. Among other things the body resolved against a tax on commercial travellers; for the repeal of the internal revenue tax on tobacco; urging aid to a direct steamship line to South America, and for improvement of the Mississippi river.

There were delegates from 29 States. Illinois had 25, Pennsylvania 17, &c.; Georgia was well represented. The Northern and Western delegates were delighted with their treatment and pleased with the city and State. The delegates were carried over the city in carriages; some 14 private houses gave receptions to them, and they were honored with a magnificent banquet at the Kimball House, which was attended by 2,000

people. A large number of the delegates were taken to Anniston and Birmingham, Ala., and up the Marietta & North Georgia Railroad to the Pickens county marble quarries.

There was unqualified amazement at the growth and resources of the South, and an unqualified sanction of the fidelity and truthfulness of the work and reports of the BALTIMORE MANUFACTURERS' RECORD.

Y. M. C. A. CONVENTION.

We have just had also the International Convention of the Young Men's Christian Association. The result has been that in four days \$41,500 has been raised to erect a building here. The matter alike illustrates the good work the association is doing and the splendid spirit of enterprise and liberality of our Atlanta men. I. W. AVERY.

Notes * From * Dixie.

BY CHAS. H. WELLS.

The opening of the Morris K. Jessup collection of timbers, in New York city, will lead many to study our forests who have never given the matter much attention before. The richness of America's timber lands is the wonder of the civilized world. There are 413 well marked and known tree species in this country, and how many more remain to be discovered no one can foretell. A new spruce has been discovered since the census list was made. Of the 413 species, 350 are on exhibition in New York, showing in each case polished longitudinal, cross and bevel sections—the whole being arranged according to their botanical affinities, from the magnolias to the palms and yuccas. The missing species will be supplied as logs can be found and prepared for exhibition. Some of them will not, however, be found at all in their native forests, for example, the *Gordonia pubescens*, which had a century ago a place in the woods of this State. The chittim-wood of Alabama is another almost extinct specie. The Jessup collection as it stands is, however, one of remarkable completeness, and the visitor in New York can very profitably spend a day in the American museum of natural history, among the woods of his own country.

Apropos of this matter of forestry, the Department of Agriculture recently issued a volume containing a sketch of Southern timber by T. M. Baker. He says: "The South is a land of forests. It contains every tree that grows north of the Ohio, and many more besides." He speaks at length of the long-leaf pine of Southern forests, and he is not inclined to agree with Dr. Mohr in the belief that the pine forests of the Gulf States will last one hundred years. Mr. Baker is inclined to think the long-leaved pine will be cut down and its place taken by short-leaved pine and the loblolly or old field pine in much less than one hundred years. Fortunately the second growth appears on land which is good for little else, and there will be little occasion for its destruction.

The volume referred to contains a statement of the wood trade of Georgia. Reports were received from 111 saw mills and 21 shingle mills in the Empire State of the South. These mills manufactured 271,092,000 feet in 1883, as against 219,707,000 feet in 1882. Nearly all the replies declare that opossum and coon hunting and the turpentine business are the chief causes of destructive fires—fires that are fast destroying the best timber in the State. Many of the correspondents urge a discontinuance of turpentine making, and the passage of stringent laws against the burning of forests. In the reports received by Mr. Baker there is evidence of an irrepressible conflict between the lumbermen and the "turpentiners."

The Rev. Dr. Talmage has given the tobacco habit a blast that has provoked quite a discussion down here in Dixie. He says tobacco is one of the worst things God ever made. General Clingman, of Asheville, N. C., the inventor—or rather discover—of the famous tobacco cure, says that Talmage is a little off; that "tobacco is one of the greatest blessings that man ever received from our all-wise Creator." He brings forward an array of statistics, too, to prove his argument, and the great orator of the City of Churches will probably have to "take a back seat." In the meantime the company organized in Durham to manufacture the "Clingman Tobacco Remedies" is reported to be doing well.

The legislature of South Carolina adjourned without making any appropriation to defray the expense of taking the census this year, and now the State press is discussing the advisability of calling an extra session to fix the matter. The census machinery is perfect, with the exception of the necessary funds. If this matter is delayed until next year, then, in pursuance of the positive command of the constitution, the census will have to be taken at a cost of about \$40,000 more than it would cost the State this year. This additional expense will result from what the Senate deemed an economical course. Unless the census is taken and a reapportionment of the members to the General Assembly made according thereto, then the Assembly which meets in 1886 will not be formed according to the constitution. From an examination of the United States Census of 1880, it is very clear some of the counties in this State have a greater number of representatives than they are entitled to, and some not as many as they should have.

The question of silk culture in South Carolina is now being talked up, and the Charleston News and Courier has printed several very interesting articles upon the subject. It is, of course, an acknowledged fact that the silk-worm grows best in China, to which country it is indigenous, but it is also allowed that wherever the mulberry tree will flourish the silk-worm will thrive if properly cared for and nursed. The mulberry tree accommodates itself particularly well to the soil of the Palmetto State, and silk has been grown near Charleston with complete success. In the upper portion of the State, especially in Greenville and Pickens counties, the country is especially well adapted for this industry, which promises to be revived.

The annual meeting of the stockholders of the Georgia Railroad was held in Augusta on the 13th inst. The usual dividend of 10 per cent. will be paid this year. The Georgia Railroad is now leased to the Central Railroad & Banking Company of Georgia, and is managed by Mr. J. W. Green, one of the most efficient and thoroughly competent railroad men in the South. Mr. E. R. Dorsey is the general passenger agent and Jos. W. White the general traveling agent. The road makes better time than any line in the State. The track has been newly laid with heavy steel rail from Atlanta to Augusta, and, in connection with the "old and reliable" South Carolina Railway, the route from Charleston to the Gate City is one of the most delightful in the country. Close connections are made with the Atlantic Coast line, and passengers from Baltimore to Atlanta will find this by far the pleasantest and most expeditious route to Atlanta, unless, indeed, I except the Western Maryland and Shenandoah Valley line, which in point of scenery surpasses the "Atlantic Coast and Stone Mountain route." Through Pullman cars from Jersey City to Aiken, the famous health resort, and thence to Atlanta go via the Georgia Railroad.

The Hon. A. P. Butler, of Columbia, Commissioner of Agriculture of South Carolina, is in daily receipt of letters from all parts of the country inquiring about the agricultural advantages offered by the State. One of the writers wished to come South and engage in the truck-farming business. He wished to settle in South Carolina, as he liked the State, and he would be glad if the Commissioner of Agriculture would look around and find him a place where his business would be profitable, temperature agreeable, location healthy, and other things generally suitable. Another writer says he has been for years connected with the immigration business. He has taken a great interest in this work, thinks it a great thing for the country, wishes to plant colonies all over the Southern States, and "would like to be instructed as to the possibility, advisability, &c., of making such a settlement in South Carolina." The nationality of the proposed immigrants is not mentioned, but they are to be so selected as to meet the wants of both the agricultural and manufacturing interests. This is what South Carolina needs, and every inducement should be held out to this class of people.

* * *
DRIFTWOOD.

Over 100,000 tobacco plants have been set on the Oakes plantation, near Raleigh.—Rhyne's Cotton Mill, on Catawba river, N. C., is running night and day to fill orders.—The hotels at Asheville, N. C., are filling up.—Concordia College, at Conover, N. C., has received \$1,000 from a friend in Newberry, S. C.—A man named Reynolds died at Hicksville, S. C., a few days ago. He had never seen a locomotive nor heard a sermon in all his life.—A Frenchman in Lafayette parish, La., has made about 36 pounds of raw silk this season, which is worth \$6 per pound. All of this was from one-half ounce of eggs which he received from the Commissioner of Agriculture. He thinks that there is a fortune in silk producing in that State.—Some Northern capitalists, satisfied with the outlook, have concluded to invest a million of dollars in the purchase of a site and the erection of a hotel to contain 500 rooms at St. Augustine, Fla.—At the close of the war the population of Jacksonville was 1,500. Now its post-office supplies a population of 20,000.

A Thriving Tennessee Town.

MORRISTOWN, E. TENN., May 22, 1885.

Editor *Manufacturers' Record*:

The steam flouring mills at this place changed hands on 20th inst. The amount paid, I understand, was \$16,020. The large tannery also recently changed hands—a gentleman from the North being the purchaser. Price not known to your correspondent. I understand arrangements are well nigh made to organize a new national bank here, with a capital of \$50,000.

Mr. Francis Richardson, of Norfolk, Va., has recently purchased about 30 acres in King's Addition, and has planted trees along the streets and is building houses rapidly. There are more houses in course of erection in Morristown than at any time in her history. The population has doubled since 1880.

The fruit crop in this section promises to be immense. As yet I know of no person who contemplates handling it on a large scale. A live man who understands the business can make money here in the drying and canning of fruit.

Extensive deposits of zinc ores were discovered last week within 4 miles of the town. The ores are said to be exceptionally pure and very rich and of incalculable quantity.

Rich and extensive bodies of iron ore exist within a few miles of town, and a splendid quarry of gray marble is within the corporate limits.

More tobacco is being grown this year than ever before, and the tobaccos raised here are of fine quality and command good prices. A tobacco factory is a necessity which will doubtless be supplied in the near future.

Notwithstanding the general depression in money matters, our future is bright and brightening.

W. H. COFFMAN.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

The Mobile Cotton Mills, Mobile, Ala., have been purchased by John Aspinwall, (price reported \$10,000) who will probably put in some new machinery and start the mills up again.

W. S. Plumber, of Leavenworth, Kan., is reported as contemplating the establishment of a factory in Birmingham, Ala., to manufacture fruit evaporators.

Tuskaloosa Rope and Yarn Mills, Tuskaloosa, Ala., have been started up by the new owners who lately purchased this property.

There is some prospect of a foundry being erected in Tuskaloosa, Ala.

It is reported that the Montgomery Oil Works, of Montgomery, Ala., will erect a number of cotton ginneries.

The saw mill previously reported as being put up in Bangor, Ga., should have been given as Bangor, Ala. It has been erected by the Bangor Saw Mill Co.

H. G. Smith, Decatur, Ala., has leased property which he will fit up with machinery for a handle factory; has ordered part of machinery—100-horse-power engine, and boiler, etc.

A court house will be built at Geneva, Ala.

ARKANSAS.

Texarkana, Ark., is preparing to erect a \$15,000 school-house.

The contract for the new building at the State Insane Asylum, Arkansas, has been awarded to C. W. Clark for \$59,700.

The Little Rock Cracker Factory, Little Rock, Ark., will be removed to some point in Texas; probably Dallas or Fort Worth.

FLORIDA.

The Magnolia Hotel, Ocala, Fla., will be partly torn down and a large 3-story brick building erected.

Lancaster Bros., of Chicago, contemplate establishing a willowware and furniture factory in Ocala, Fla.

John F. Dunn, Ocala, Fla., will erect a block of buildings.

Tyler & Sherman, Ocala, Fla., have purchased machinery for a planing mill.

A. B. Rodgers, of West Newbury, Vt., expects to establish a starch factory in Ocala, Fla., in the fall.

A saw mill is to be erected at Gulf City, a new Florida town.

J. H. Griffith, De Land, Fla., is secretary of the college association that will erect large school buildings at that place.

It is understood that the Sunny Side Hotel, St. Augustine, Fla., has been purchased by a company that will erect on the same ground a hotel to cost when furnished nearly \$1,000,000, and to have 500 rooms.

A tannery, it is said, will be started at Glen St. Mary, Fla.

GEORGIA.

W. C. Kinard, Towaliga, Ga., previously reported as building a chair factory, will also erect a saw mill.

The Campbell Cotton Press Co., Albany, Ga., have been granted exemption from taxation on the compress and machinery to be erected in that city.

David Denning & Co., Augusta, Ga., has leased a rock quarry near Sparta, Ga., for five years.

Over \$40,000 has been raised in Atlanta, Ga., for the erection of a Young Men's Christian Association building.

KENTUCKY.

G. W. Gibson, of Louisville, Ky., contemplates the removal of the Southern Wire and Iron Works, of that city, to Lexington, Ky.

The Street Car Money Drawer Co., capital stock \$6,000, has been organized in Louisville, Ky., by Jas. T. Lanham, Wm. H. Harrison and Arthur L. Thompson, to manufacture street car money drawers.

We are informed that Wm. Johnston, Cloverport, Ky., can give information about the English company previously reported as intending to mine coal near that place.

The Anderson Distillery Co., capital stock \$100,000, and the Anderson & Nelson Distillery Co., capital stock \$100,000, have been organized in Louisville, Ky.

Frank Parham, Paducah, Ky., expects to commence the erection of a pottery shortly.

R. N. McNay has commenced work on his new flour mill at Crittenden, Ky.

LOUISIANA.

M. J. Duty & Co., Monroe, La., previously reported as intending to build a machine shop, will erect a building 38x70 and put in modern machinery; have machinery already for the building.

Martin & Dreiholz, Bayou Ramos, (P. O. Morgan City, La.) have doubled their saw mill and built a large planing mill.

The Turnball Automatic Car Coupler Co., capital stock \$100,000, has been incorporated in New Orleans, La., by J. Hernandez, A. G. Brice, Chas. A. Conrad, Barnard Brown, L. W. Brown, Walter Turnbull, Chas. Carroll, Adam S. Perkins and Robert H. Marr, Jr. The object of the company is to manufacture and sell car couplers.

Work has been commenced on a \$100,000 government building at Shreveport, La., by the contractor, C. A. Leffingwell.

The Eureka Shutter Worker and Novelty Co. has been organized in New Orleans, La., with Henry Marx as president, Giles M. Hillyer as vice-president, Etienne Amand Ducros as secretary, and Wm. F. Miller as treasurer, to manufacture and sell a patent shutter worker, &c. Capital stock \$10,000.

MARYLAND.

A factory for the manufacture of the extract of bark is being erected at Frostburg, Md., by O. K. Lapham, of Chicago. Wm. Gooding, Frostburg, is manager.

The contract for the construction of fishways at Great Falls, Md., has been let to John E. Lyons, of Baltimore, for \$34,160.

MISSISSIPPI.

M. J. Bond, of Grand Rapids, Michigan, has purchased 2,000 acres of land in Mississippi, on which he proposes to build a saw mill, near Armstead.

A creamery has been organized at Aberdeen, Miss., by L. E. Houston, J. W. Howard, A. H. French, R. E. Houston, E. O. Sykes, Jno. C. Wicks, W. P. and B. S. Hatch; capital \$3,000.

NORTH CAROLINA.

A. A. Barker & Sons, High Point, N. C., have lately enlarged their buildings and put in machinery for manufacturing tobacco boxes.

Jas. A. O'Neil, Henderson, N. C., is preparing to erect a new carriage and wagon factory 50x60 feet, 3 stories, iron front, adjoining his present factory.

C. C. Allen is building a brick ginney in Elizabeth City, N. C.

The new tobacco factory of Ebert, Bahnson, Wood & Co., Salem, N. C., is in operation.

W. L. McGhee has purchased machinery and will manufacture tobacco flues at Franklinton, N. C.

A courthouse and jail are to be built at Williamston, N. C.

Jos. Spoon is erecting a steam grist mill near Asheboro, N. C.

A tobacco factory is being built in Kernersville, N. C., by Brown, Sapp & Co.

John T. Patrick, State Immigration Agent, Raleigh, N. C., is in correspondence with a number of parties who contemplate establishing canning factories in that State. Mr. Patrick states also that a company has been formed to build a \$50,000 hotel at Southern Pines, N. C., a new winter resort.

SOUTH CAROLINA.

The South Carolina Bent Wood Furniture Co., previously reported as organized at Columbia, S. C., have a capital stock of \$35,000 all subscribed. The company will commence building a two-story factory 35x240 feet at once; capacity will be 200 chairs daily. R. G. Chisolm, Charleston, S. C., is president.

TENNESSEE.

J. P. Scott, Elizabethton, Tenn., has purchased two woolen factories at that place which he will operate as the Watauga Woolen Mills; will probably add some new machinery shortly.

Napoleon Hill, Memphis, Tenn., will erect a business block to cost about \$25,000.

G. W. Parker, Newberne, Tenn., previously reported as building a flour mill, has nearly completed it.

Nashville Union Depot Co., previously reported as organized to build a union depot and a hotel, have elected J. W. Thomas president and J. H. Ambrose secretary.

D. D. Nicholas, A. P. Bradford and others, Knoxville, Tenn., have organized the Gem Marble Co.

The Union City Tile Factory, Union City, Tenn., have nearly completed their factory to make tiles; cost when completed will be about \$8,000.

J. C. Connell and J. W. Thornhill have completed their stove mill at El Dorado Springs, near Goodlettsville P. O., Tenn.

The Citizens' Street Railway Co., Memphis, Tenn., have asked for privilege of laying about 16 miles of street car track.

Wm. Fry & James Cunningham have started a planing mill and wood-work shops in Sweetwater, Tenn.

TEXAS.

W. H. Harris & Bro., San Antonio, Texas, have established a brick yard.

Gonzales, Texas, is to have a new jail, to cost between \$30,000 and \$40,000.

The Burford Plow Co., it is reported, have purchased extensive property at Fort Worth, Texas, with a view to making their place the headquarters for the Southwest for their agricultural implements.

An association has been formed in Fort Worth, Texas, with A. M. Britton, president, and Sidney Martin, treasurer, to erect a large commercial exchange building.

J. D. A. Harris, Dallas, Tex., will erect a large storage warehouse.

J. A. & J. N. Rushing, Terrell, Tex., whose cotton-seed oil mill was burned some time ago, contemplate rebuilding if satisfactory arrangements can be made.

Some months ago there was some talk at Longview, Texas, of building a cotton-seed oil mill, but nothing has been done towards building it, and a correspondent writes us that it is not likely any will soon be erected.

The Ellis County Milling Co., capital stock \$50,000, has been organized in Waxahachie, Tex., with H. M. Rhodus, secretary; G. R. Boren, president, and E. C. O'Neil, vice-president.

A company has been organized in Wichita Falls, Texas, to improve the water-power of the Big Wichita river, build a dam, etc., so as to make it available for manufacturing purposes.

The contract for the court house, previously reported to be built in Menard county, Texas, has been awarded to Vickery & Hynes at \$12,500.

Efforts are being made to establish a flour mill at Denton, Texas.

A flouring mill, it is said, will be built in Marienfield, Texas, during the summer.

The Texas Paint and Oil Co., capital \$10,000, has been chartered at Tyler, Texas.

There is some prospect of a cotton compress being built in Gainesville, Texas.

Edinburg, Texas, is to have a \$20,000 jail and courthouse.

VIRGINIA.

Roanoke, Va., has raised nearly \$15,000 to aid in securing the removal of a tool factory from the West to that place.

The Brookland Woolen Factory, near Winchester, Va., is being improved and new machinery put in.

A. L. Jones, of Philadelphia, has received the contract to build the water-works in Harrisonburg, Va., for \$25,000.

J. L. Collier has purchased ground in South Boston, Va., and will build a large two-story flour mill, 40x30 feet. All the machinery has been purchased. The capacity will be five hundred bushels per day.

WEST VIRGINIA.

It is rumored that the Belmont Nail Co., of Wheeling, W. Va., will erect a steel plant.

The Commercial Oil & Soap Co., Parkersburg, W. Va., have lately established a soap factory.

BURNED.

Mill and store of W. R. Bolding, Woolley's Ford, Ky. Loss \$2,500.

Saw mill of W. A. Cleckley, near Aiken, S. C.

Saw mill of T. W. Taylor & Bro., Woodworth, N. C.

Saw mill of Johnson, Glass & Co., at Lovelady, N. C.

Pork packing house of Seesell, Armistead & Co., Memphis, Tenn. Loss \$25,000.

Holtgrave's grist mill at Grand Gulf, Miss.

ELIZABETH CITY, N. C., May 22, 1885.

Editor Manufacturers' Record:

We built last year and equipped in the best style a press and repress brick yard. We have a machine that will turn out 36,000 press brick per 10 hours, propelled by Frick & Co.'s 18 horse power stationary engine. The brick are almost equal to repress brick. The clay is taken direct from the bank and put in mill, tempers, press and delivers from the mould to the main hand; with 15 hands we make 18,000 per 10 hours, easy running, and with 28 can run out 36,000. If dry weather we shingle the clay when brick come out, not a particle of dry clay can be observed, so perfectly tempered is it. Our repress brick are quite up to Baltimore and Philadelphia.

C. C. ALLEN.

LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

A Fine Planing Mill.

BAYOU RAMOS, LA., May 24, 1885.
P. O. MORGAN CITY, LA.

Editor Manufacturers' Record:

Messrs. Martin & Dreibholz, of this place, have just completed and put in operation one of the best planing mills in this section, using H. B. Schenck's "Hercules" machines; have also doubled their capacity in saw mill department, and are prepared to saw, bead, mould, tongue and groove any piece of timber from 9x16 inches to 1 1/4 x 1 1/2 inches, 90 feet down to 1 foot in length.

H. HITCHCOCK.

BANGOR, ALA., May 21, 1885.

Editor Manufacturers' Record:

A steam saw mill has been put up in this place recently. The style of firm "Bangor Saw Mill Co.," composed of J. V. Musgrove & S. E. Willoughby.

A Big Brick Yard.

ATLANTA, GA., May 22, 1885.

Editor Manufacturers' Record:

We do not contemplate establishing any yard in Chattanooga, but hope to supply the demand from our works here. We have capacity 60,000,000 per annum, and manufacture the best brick in America.

CHATTANOOCHEE BRICK CO.

A Tile Factory.

UNION CITY, TENN., May 21, 1885.

Editor Manufacturers' Record:

We are now putting up a factory, and will soon be ready to commence manufacturing tile. I am only employed to superintend the concern, and it is known as the Union City Tile Factory; capacity one kiln per day. Cost when completed about \$8,000.

J. B. HATCHER.

HAW RIVER, N. C., May 24, 1885.

Editor Manufacturers' Record:

I have contracted and am now making the brick for Col. Thos. Holt's new cotton mill. Dimensions: Length 200 feet, width 100 feet. Belted from below. In addition to Col. Holt's work, I am now laying the foundation of Jas. A. Holt's store at Company Shops; 75x50 feet; 2 stories; upper story in one hall for a town hall.

JNO. W. LONG.

A New Marble Co.

KNOXVILLE, TENN., May 23, 1885.

Editor Manufacturers' Record:

The Gem Marble Co., of Knox county, has just been organized by the following incorporators: D. D. Nicholas, A. P. Bradford, A. Perta, T. V. Willis and C. B. Henshouser.

-H. N. SAXTON, JR.

ELIZABETH CITY, N. C., May 23, 1885.

Editor Manufacturers' Record:

We are building a brick gin house, and will be equipped with the necessary outfit of modern improvements.

C. C. ALLEN.

SAN ANTONIO, TEX., May 19, 1885.

Editor Manufacturers' Record:

We have established a brick yard here, and are now in successful operation.

W. H. HARRIS & BRO.

LANCASTER, TEX., May 20, 1885.

Editor Manufacturers' Record:

We have abandoned building a flour mill at Lancaster, but we are now building a new full roller mill at Waxahachie, Texas, of 75-barrel capacity—Nordyke & Marmon Co's system of milling. We are building now, and will be ready to run about 15th of August next.

W. R. MOFFETT & SON.

BLACKSBURG, VA., May 20, 1885.

Editor Manufacturers' Record:

I have established a broom factory here; hope to be able to fill all orders in ten days.

EDWARD ALLEN.

Aberdeen's Oil Mills.

ABERDEEN, MISS., May 18, 1885.

Editor Manufacturers' Record:

There are two oil mills projected—the one a branch of the Columbus Oil Mills; the other, McKinnon & Boyd. The former at present under construction. The latter purchased and paid for ground and location, and soliciting subscriptions for stock, in which they seem to meet with success.

MORRIS GALTMAN.

CORSICANA, TEX., May 18, 1885.

Editor Manufacturers' Record:

We are putting in new cylinder and link in our Taylor press. The Pusey & Jones Company, of Wilmington, Del., are doing the work.

CORSICANA COMPRESS CO.

TROY, N. Y., May 19, 1885.

Editor Manufacturers' Record:

I shall probably transfer a system of cotton machinery I have to the South. Where I shall determine to locate is not decided.

COLLINS AMRER.

FOWLING CREEK, MD., May 19, 1885.

Editor Manufacturers' Record:

Our mill was burned, and we do not intend to rebuild. The firm of Towns & Wright have bought our engine, etc., and intend to start business soon as fixed up.

J. T. WRIGHT & BRO.

MONROE, LA., May 19, 1885.

Editor Manufacturers' Record:

We will commence this week building machine shop fully equipped with all modern tools; size 38x70 ft.; iron; fire-proof. Tools and power now ready for work soon as building is ready.

M. J. DUTY & CO.

BOWLESVILLE,

ALBEMARLE CO., VA., May 22, 1885.

Editor Manufacturers' Record:

If a sufficient amount of money (\$40,000) can be raised, the proposed flouring mills at Shadwell will be established; otherwise the scheme will be abandoned. This will be ascertained in the next 60 days.

BARTLETT BOLLING.

NASHVILLE, TENN., May 21, 1885.

Editor Manufacturers' Record:

We are glad to inform you that our works were not burned, as reported. It was the Kinsey & Franklin Works that were burned out not long since.

CUMBERLAND LUMBER CO.

CHARLESTON, S. C., May 20, 1885.

Editor Manufacturers' Record:

The South Carolina Vienna Bent Wood Furniture Co. organized; capital stock \$35,000; all subscribed for; will commence building factory at once, 35x240 feet, two stories, in Columbia, S. C.; expect to be at work in two months from 1st June; capacity 200 chairs daily; will manufacture 50 styles of chairs, besides sofas, tables, stools and bent-wood articles of every description, equal in every respect to the finest imported goods.

R. G. CHISOLM, President.

SEABOARD, N. C., May 20, 1885.

Editor Manufacturers' Record:

There was some talk here a few months ago of erecting a cotton-seed oil mill, but it has about died out, and I don't think the matter will be pushed any farther.

A. B. DAUGHTNY.

FROSTBURG, MD., May 25, 1885.

Editor Manufacturers' Record:

O. K. Lapham, of Chicago, is proprietor of the new bark extract factory near Frostburg, Md. Wm. Gooding being resident manager. Post-office, Frostburg, Md. M.

SPARTA, GA., May 25, 1885.

Editor Manufacturers' Record:

I have leased my granite quarry for five years to David Denning & Co., Augusta, Ga.

MRS. WM. MULLALLY.

Another Bray from the Chattanooga Animal.

The editor of the Chattanooga Times again swings his shillelah, and brings it down with crushing force upon his own cranium. He contradicts himself repeatedly, and succeeds admirably in refuting the claims he has himself advanced. As an evidence of dishonesty and imbecility his last effort is a remarkable success.

He first attacks in his usual chaste and refined mode of expression the Birmingham Age, his abuse of that paper being called forth by the kindly admonition of the editor of the Age, who, in commenting on our complete and overwhelming exposure of the Times editor's utter unreliability and the motives underlying his attack on this paper, advised him to thereafter "keep silent, and go on emulating the excellent work of the RECORD."

Feeling it necessary to say something in defence of his course, he strings together a lot of wild assertions that bear on their face their own absurdity and the evidence of their falsity. He says among other things that "the BALTIMORE RECORD set out in impressive columns of figures that \$105,000,000 had been invested in new enterprises in the eleven Southern States in 1884." That is a misstatement purposely intended to mislead. Our statistics took in fourteen States, instead of eleven, and the names of the fourteen were given. The editor of the Times knew that when he wrote the above, and he knowingly and wilfully lied. He also says "the statement was fully three-fourths pure romance." That is, the capital and capital stock of Southern enterprises organized or incorporated in 1884 was only one-fourth of the above amount, or about \$26,000,000. And yet, as stated in our issue of May 16, the editor of the Times says that of the new enterprises organized in the South in 1884, he knows of 299, with a capital of more than \$52,000,000. Verily, this able statistician should buy a primary arithmetic. He says, further, that we claimed that \$23,000,000 had been invested in new enterprises in the first three months of 1885 in the eleven Southern States. Another prevarication purposely made. We said that \$20,591,100 was the amount of capital, capital stock, etc., in fourteen Southern States.

He says that in our issue of May 16 he finds "a string of ordinary news items, the editor claims appeared in the Tradesman subsequent to their appearance in the RECORD. * * * In point of fact, the items are of no especial account. * * * Whether the RECORD or the Tradesman happened to copy them first from the Southern newspapers don't signify." How is it that the Tradesman got our exact language word for word? They were not copied by this paper from anywhere. Not one of the items enumerated in our issue of May 16, as having been stolen by the Tradesman, can be shown to have ever appeared in any paper in that shape prior to their publication in the MANUFACTURERS' RECORD. They were written in this office. Their subsequent appearance in the Tradesman, in identically the same language, can admit of only one explanation, and this pitiable attempt to squirm out of it is idiotic. As to the claim that they were of no especial account, that is probably true so far as the Tradesman is concerned. The editor, for once, makes an honest admission; he could hardly claim that they were of any especial account to the readers of his paper, since they had already been given to the public through the columns of the MANUFACTURERS' RECORD from three weeks to two months before. When published in this paper, though, they contained fresh information of interest and value, and were supposed to be of some account. Our space is valuable; we have no room for matter that is "of no especial account." That's the difference between a live paper and a dead one. He says we "sneakily alleged by innuendo" that the Tradesman stole these

items from the RECORD. We did no such thing; we stated in plain English that they were so stolen. Does the editor of the Times imagine that we were afraid to charge him openly with the theft of which he was guilty? He says, as above quoted, that the Tradesman copied these items from the Southern newspapers. Further on he repeats that they were gleaned by the Tradesman from the daily papers. But at the head of his column of "Southern Building," he says they are "gathered by reliable correspondents." Now which of these statements is false? They can't both be true. He says he found no argument in our issue of May 16 to disprove his claims as to the incorrectness of our figures. Then he didn't read the article. How about those concerns he claimed never to have heard of in Chattanooga, that we not only proved to be in existence, but proved it by reports in his own papers?

He says a number of establishments in our 1884 list were "rated in the RECORD list at some \$185,000." These figures are purely the product of his vivid imagination. We never gave as the capital \$185,000 or any other figures; the capital and capital stock were given only in the aggregate by States, and there was not a word as to the amount invested in any one city. He further says: "Taking the whole of the RECORD's 'new concerns' located at Chattanooga from the 1st of January, 1884, to the 1st of May, 1885, and the capital involved reaches away above \$2,000,000." This is another deliberate lie. We have never stated what the capital of the new concerns started in Chattanooga amounted to.

This accomplished individual possesses a remarkable capacity for getting himself mixed up. He has, throughout, shown himself to be a disreputable falsifier, ready to perpetrate any sort of a falsehood when moved by enmity and spite.

We have heretofore abstained from engaging in controversies with other papers, since they are matters in which the public can have no interest; but, as in this instance, the slanderous attack on this paper was at the same time a blow at Southern progress, we have felt called upon to show up the animus of this attack, and the absolute unreliability in every aspect of the source from which it came.

A Fine Saw Mill.

GRAND RAPIDS, MICH., May 25, 1885.

Editor Manufacturers' Record:

I have bought in Rankin and Scott counties, Miss., 2,000 acres yellow pine land, on which there is a mill; but I intend to erect a first-class mill at or near Armstead, on the V. & M. Road, 28 miles east of Jackson. Will run a narrow gauge road back to the timber, some 4 miles, and make a specialty of heavy joist and bill timber.

M. J. BOND.

FRANKLINTON, N. C., May 25, 1885.

Editor Manufacturers' Record:

In addition to the business I have heretofore engaged in, I am now manufacturing sheet iron tobacco flues, and my operations, I think, are on sufficiently large scale to supply this entire community.

W. L. MCGHEE.

TRIUNE, TENN., May 14, 1885.

Editor Manufacturers' Record:

We are having a flour mill remodeled to the roller system from stones. The machinery is furnished by the Case Manufacturing Co., Columbus, Ohio. It will cost about \$4,000.

JORDAN, SHELTON & CO.

DAVISVILLE, ALA., May 23, 1885.

Editor Manufacturers' Record:

I am now mining iron ore at this place and shipping to the Mary Pratt and Sloss furnaces, Birmingham, Ala.

THOS. H. DUNN.

The Great Development of One County in Alabama within the Last Few Years.

ASHVILLE,
ST. CLAIR CO., ALA., May 21, 1885.
Editor Manufacturers' Record:

The issue recently made with the RECORD by the management of the Chattanooga Times, in regard to the verity of the former's statements about the rapid progress of the South, induces me to write this article to prove that in some portions of this section the progress is even more wonderful by far than it has ever been stated, and that those who live in the South pretending in any measure or in any way to represent the idea of its growth and development, and are blind to this simple fact, so generally known here and so easily to be ascertained abroad, are stupid indeed, to use no harsher expression.

Ashville is the county seat of this county, and about 104 miles southwest of Chattanooga. As a trunk line of railroad comes

located and work actually begun. In the latter part of the month of March, 1883, a large number of hands were at work, and in July, same year, the road was completed from East and West junction in Calhoun county, Alabama, to Broken Arrow, its present western terminus, a distance of 42 miles, and had regular trains running and stations established along the line. The magnitude of this undertaking, with its successful consummation, can be better understood when I add that Coosa river, one of the largest streams in the State, was spanned with an iron bridge, and the road bed was cut in the hilliest portion of this county. The company at once began work on the other end from Cartersville to the junction, a distance of 32 miles, about 10 of which run into Georgia, and 22 in Alabama. This part of the extension had to be constructed through the very roughest country for railroad building, but was completed by July, 1884, and both passenger and freight trains were running through at that time.

All this may appear quite insignificant in

amid its solitude, has been made to yield up its hidden natural wealth to ends and purposes of progress.

It would occupy too much of your space for me to treat the results which already have followed the projection of this railroad into the hills and forests of this country. Industrial towns and villages are being built all along the line, and when one contrasts what was but two years ago with what is now to be seen on this route, it looks like a work of magic. Hundreds of tons of coal per day are lifted from the Broken Arrow mines, and the latest improved machinery for the purpose has been planted there, where not three years ago only appeared to the eye a pine woods. Sixty-one coke ovens are already in operation. A large, thriving mining town, known as Myer, is now rapidly taking the place of what was once known as Broken Arrow village. A large amount of capital is distributed every month at this point. East of Myer, in this county, on this line of road, several other coal mines are in operation, and others being opened. Towns

this railroad, the object of which will be to utilize about 1,000 tons more of coal per day from the St. Clair mines, in the manufacturing purposes of Anniston, a new town lately risen as if by the magician's art out of some piney hills in Calhoun county. Perhaps your Chattanooga critics will not believe it, but Anniston already has the finest hotel in the entire South, and one that I dare say will do as a rival for the most costly structures of the kind in the largest cities.

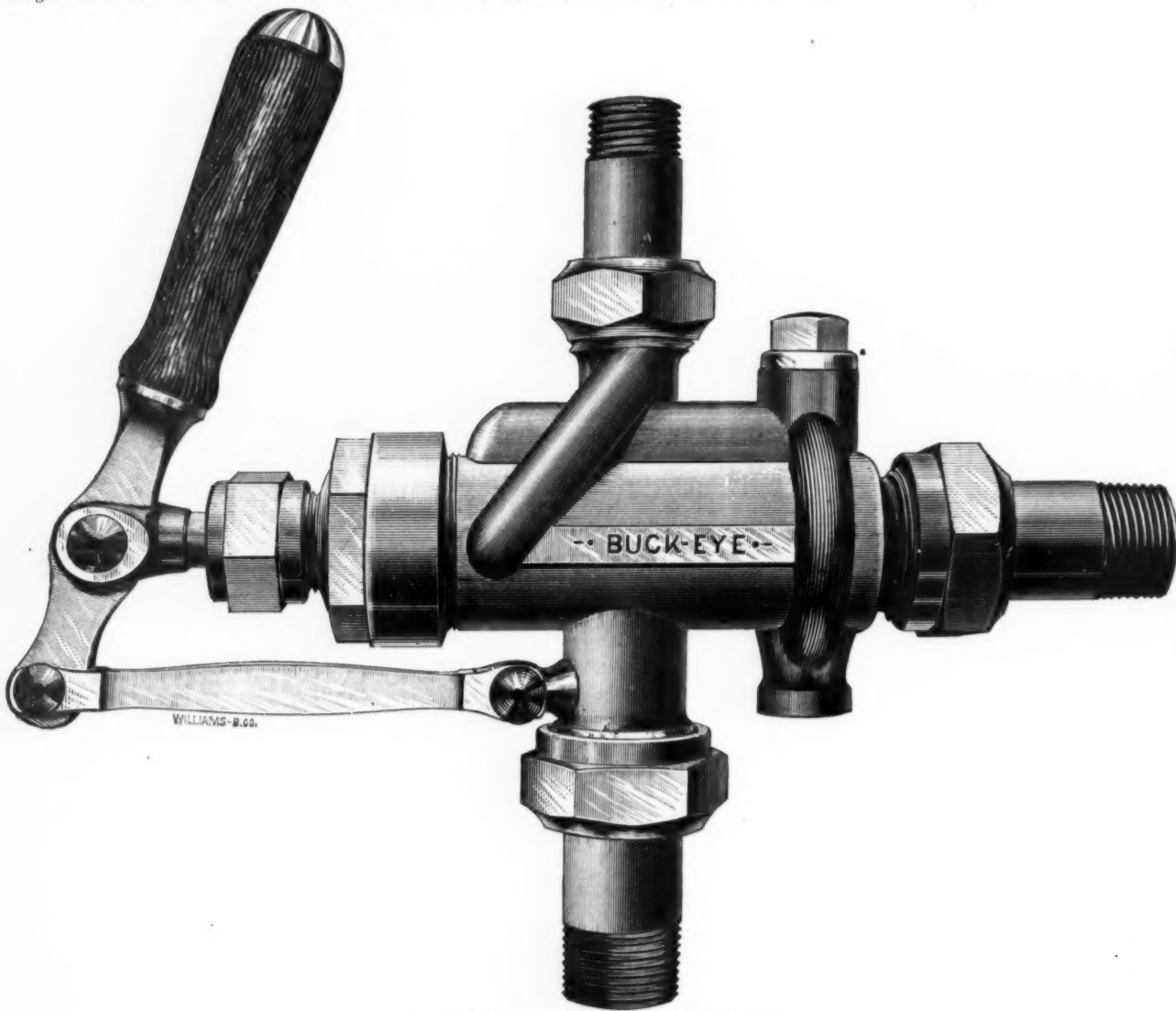
GEO. R. CATHER.

THE MANUFACTURERS' RECORD, of Baltimore, Md., a weekly journal devoted to the manufacturing, mining and railway interests of the Southern States, is one of the most highly valued of our exchanges. It has branch offices in New York, Chicago and Atlanta, and has proven itself a wide-awake and aggressively progressive agent in promoting the work it has undertaken. It has done and is doing good service in calling attention to the resources and development of the entire South, so we most heartily commend it to the patronage of our readers.—The Virginias, Staunton, Va.

The Buckeye Injector.

We illustrate in this connection the Buckeye New Patent Lifting Injector for feeding water to portable, stationary and marine boilers. The steam used in working the injector is returned to the boiler with the feed water, thereby raising its temperature to about 190 degrees, and preventing the unequal expansion so disastrous to boiler plates when cold or water of a low temperature is supplied. The feed water enters the boiler in a continuous stream, which is far more desirable than the intermittent supply from a pump. The simplicity of construction and certainty of action recommend the Buckeye wherever it is tried. The manufacturers claim that it will work under all circumstances when properly set up and operated as directed; that it has the most simple and scientific arrangement of tubes that can possibly be obtained for lifting and forcing water into any steam boiler; that the variable pressure of steam does not affect it; that it is easily attached, easily operated and easily kept in order; that all sizes of machines will lift water from 20 to 25 feet. The openings are large enough so that sandy or muddy water will not stop its workings. It cannot freeze, and there are no movable parts in its internal construction to wear out or get out of order.

For circulars, price-lists, &c., address Crosby Bros. & Co., 242 Lake street, Chicago, Ill.



THE BUCKEYE NEW PATENT LIFTING INJECTOR.

out of that city, passing directly through this section, the editor of the Times will have every facility of verifying or disproving what I write. In 1881 two modest looking gentlemen visited this town and held a brief consultation with the law firm of Myer & Greene. The result of their visit, unexpected at the time, was the investment of millions of capital in this part of the State as follows:

The Cherokee Railroad Company became desirous, if the inducements offered were sufficient to justify it in doing so, to extend its road from Cedartown, Ga., to a point near the centre of this county, known as Broken Arrow, and the visit of the two gentlemen referred to was made to ascertain what arrangements could be secured with the land owners along the proposed line in the event of building the road. I will not go into details, but state it as a fact that the road was chartered, and in 1882 the line was

view of the great trunk lines traversing various parts of the country; but if such were indeed true, how easy for me to have referred to the construction of the Georgia Pacific from Atlanta to Birmingham, and the track of which was being laid through this county, within six miles of Broken Arrow, at the time the Cherokee company was pushing its extension into the hills of that village. It is hard to realize the fact that 110 miles of railroad was built to reach as a western terminus, for the time, a small village of less than one hundred inhabitants, in an isolated, hilly and wooded country; and although the story may seem like a fairy tale, it is true. Now in less than two years we have only to look at results to get an idea of this wonderful progress. A section heretofore devoted almost exclusively to agricultural pursuit, and much of which was a wilderness as primitive as when the war-whoop of the Aborigine hunter sounded

and villages are springing up, and land which could have been bought for \$1 or \$2 per acre, is now worth \$50 to \$75 per acre, and this confined to no one locality. The hills teem with coal, iron, lime and other natural wealth, backed by forests of a variety of timber for building and the manipulations of mechanical art, and the latter are now being utilized by the various industries introduced in the rapid growth of the communities along the route, and a large number of new saw mills are kept constantly running.

The East & West Company is in some places running its arms out from the main line into the hills and forests, to gather up nature's abundance here for transportation to the cities, to be applied to the wants of man; and I have recently learned that it is expected within the next six months a branch connection will be made with Anniston from some point in Calhoun county by

A BIRMINGHAM correspondent of the Atlanta Constitution says: "J. W. Sloss, president of Sloss Furnace Company; Enoch Ensley, president of Pratt Coal, Coke & Iron Company; T. T. Hillman, president and general manager of Alice Furnace Company, and Thos. Peter, president Briarfield Coal & Iron Company, went on to Pittsburg two weeks ago to witness the making of steel by the Clapp-Griffiths process. Col. Sloss intends visiting Pittsburg again very soon to further study this new process, and if upon a second investigation his opinion remains as now, his company will then begin erecting the necessary plant for the manufacture of steel. It is known that as soon as the Sloss furnace works in this matter the others will follow."

DR. C. WHITTIER, of Riverside, Cal., has purchased 60,000 acres of land in Swain county, N. C., for \$1 an acre, on which he proposes to settle immigrants.

A week more of conjecture and doubt about the June strike or lockout will be resolved, and we shall have a working basis. Some specifications we have lately endeavored to place were declined by manufacturers who are certain that the struggle is coming off according to the play-bill this time and positively no postponement.—Another writes: "I do not take much stock in the strike; at any rate it will not affect us." A third fixes 90 days for its duration, a fourth 60 days, and still another thinks a

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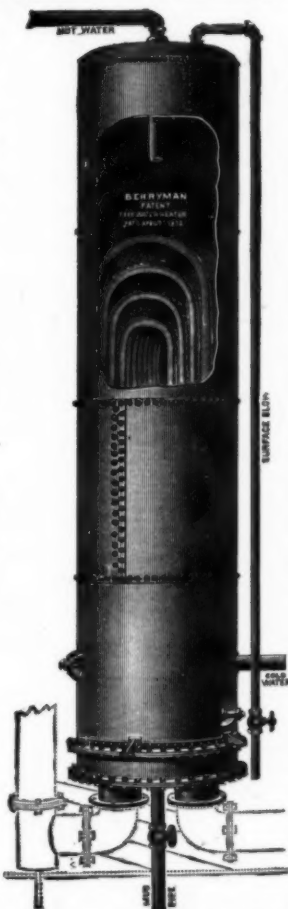
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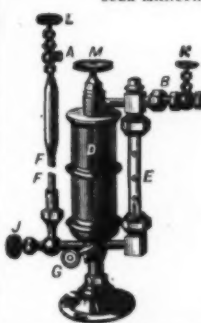
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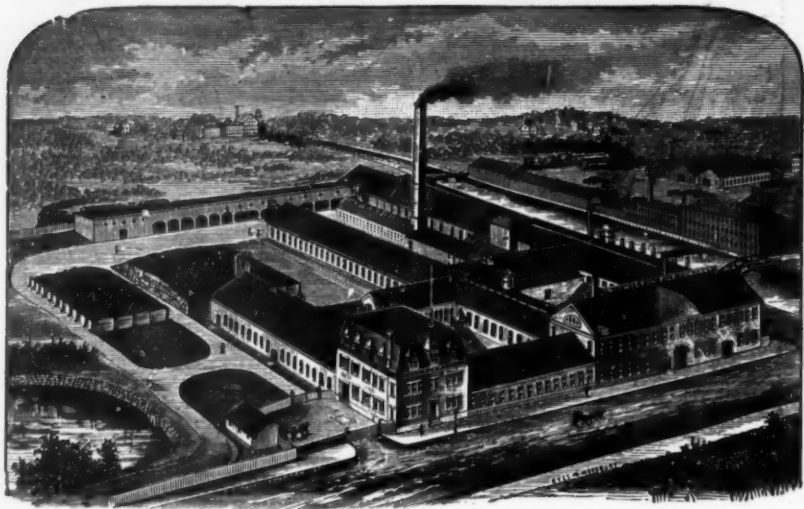
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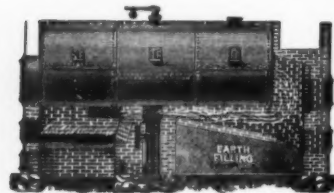
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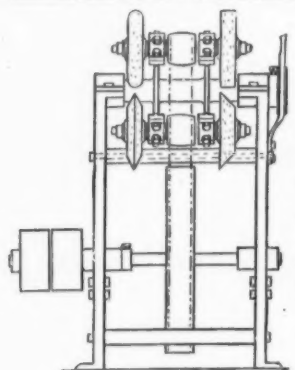
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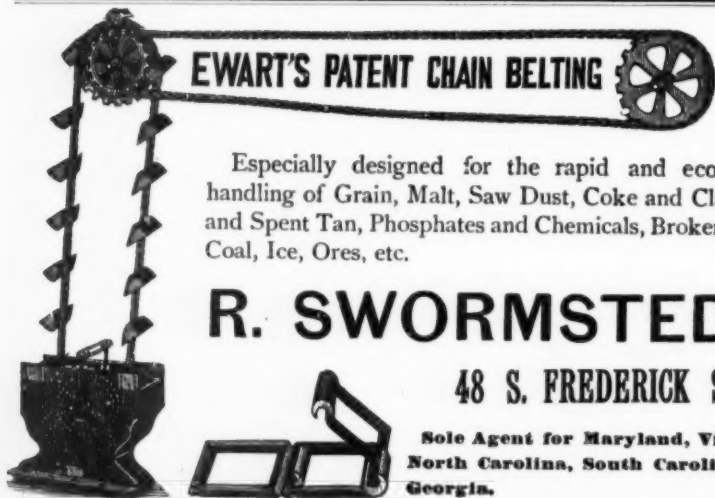
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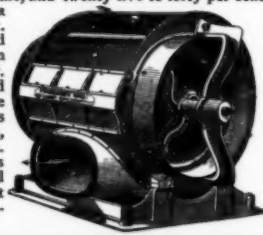


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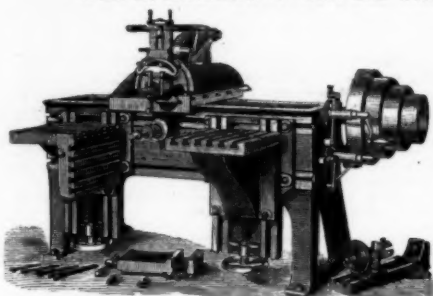
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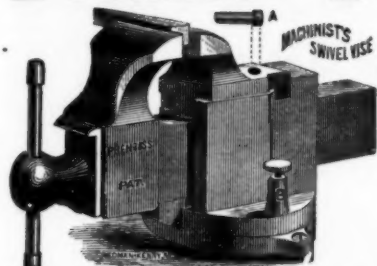
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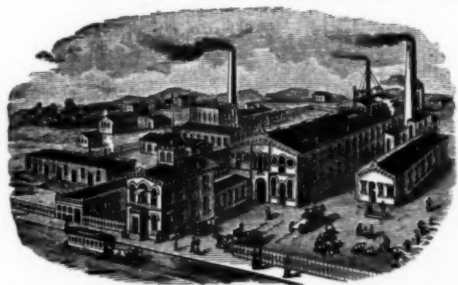
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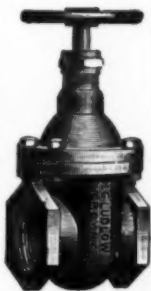
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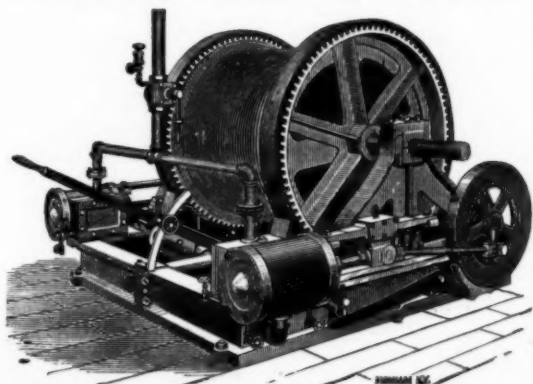
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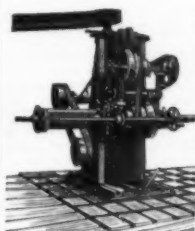
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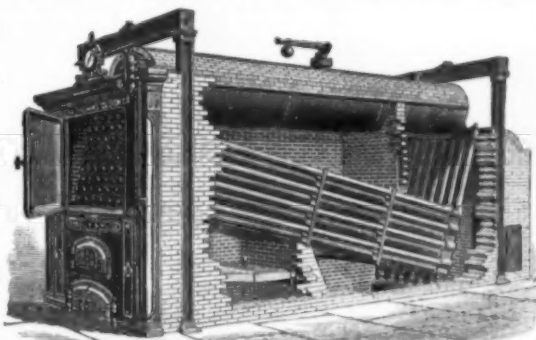
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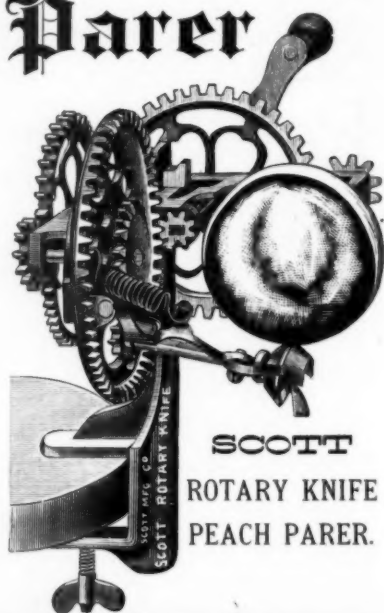
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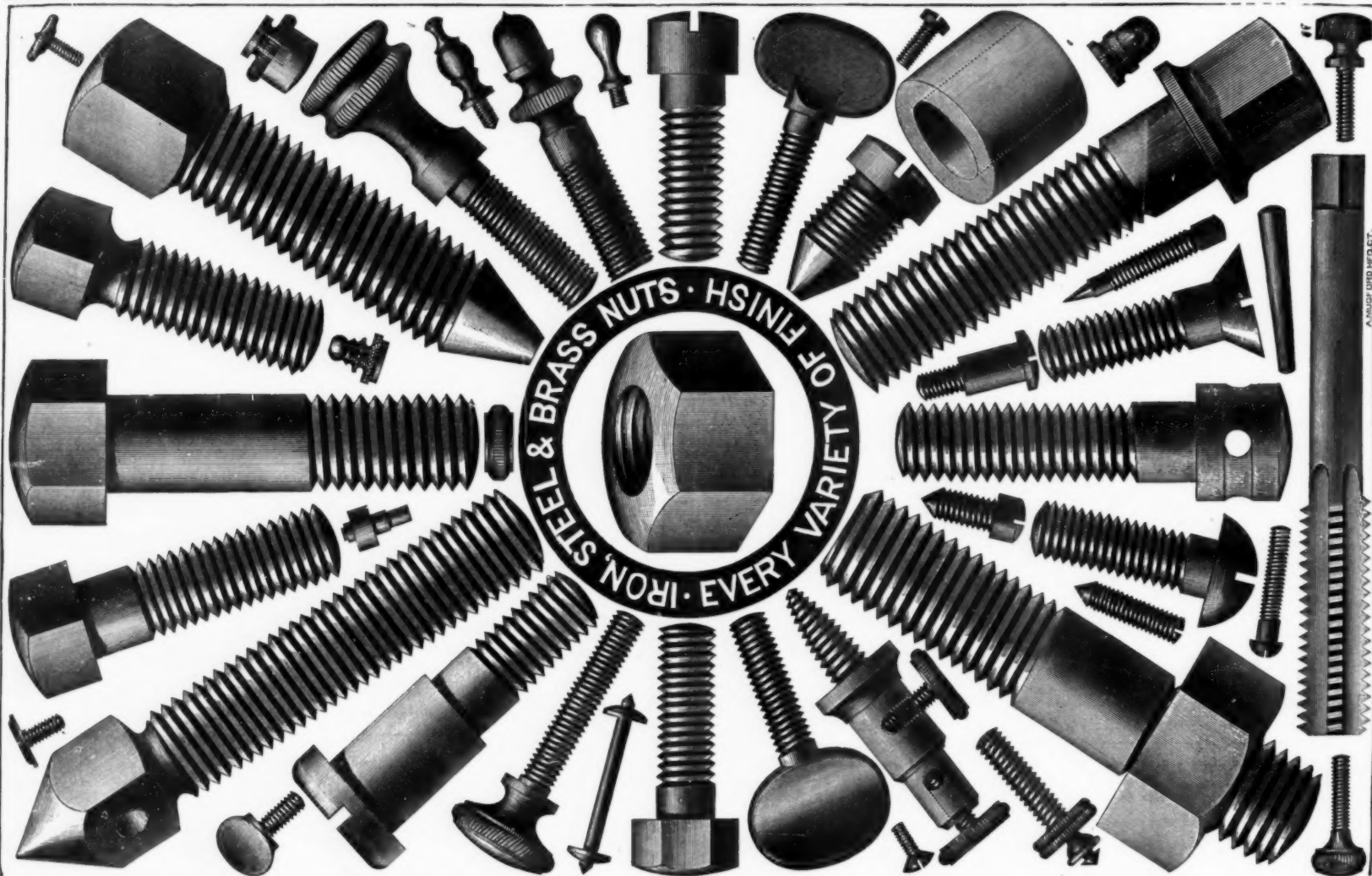
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Gimlet Bits..... dis 25%
Gimlet Bits, Diamond..... dis 40%
Double Cut Gimlet Bits, Shephardson's..... dis 40%
Double Cut Gimlet Bits, Douglass..... dis 33%
Double Cut Gimlet Bits, Ives'..... dis 30%
Morse's Bit Stock Drill..... dis 25%
L'Hommedieu's Ship Augers..... dis 15%

AWL HAFES.
Sewing Brass Ferrule..... dis 40%
Patent Sewing, Short..... dis 40%
Patent Sewing, Long..... dis 40%
Patent Peg, Plain Top..... dis 40%
Patent Peg, Leather Top..... dis 40%

AWLS, BRAD SETS, &c.
Awls, Sewing, Common..... 75c to \$1
Awls, Shouldered Peg..... 75c to \$1
Awls, Patent Peg..... 50c to \$1
Awls, Shouldered Brad, 10 gross \$2.70, dis 25%
Awls, Handled Brad..... dis 25%
Brad Sets, Aiken's..... dis 25%
Brad Sets, No. 42, \$10.50; No. 43, \$12.50..... dis 25%
Brad Sets, Stanley's Exc., No. 1, \$9.60, dis 25%
Brad Sets, Stanley's Exc., No. 2, \$4.50, dis 25%
Brad Sets, Stanley's Exc., No. 3, \$7.80, dis 25%

AXES.
Collins & Co..... \$7.25; beveled, \$7.75
Cohoes Mfg. Co..... \$7.25; beveled, \$7.75
Lippincott or Mann's.....
Single Bit, 4 1/2 to 5 1/2 and under..... 10 doz. \$6.50 net
Single Bit, 4 1/2 to 6 and over..... 10 doz. \$7.00 net
Single Bit, beveled..... 10 doz. \$7.00 net
Double Bit, 4 1/2 to 5 1/2 and under..... 10 doz. \$12.00 net
Double Bit, 4 1/2 to 6 and over..... 10 doz. \$13.00 net
Double Bit, beveled..... 10 doz. \$13.00 net
Second quality Axes..... 50 cts. less than above

AXLES.
Sheldon & Co., iron..... 55% off
steel..... 55% off
AXLE GRASS—FRASER'S..... 10 lb. 6c.

BALANCES.
Spring Balances..... dis 40%

BELLS.
Hand, Light Brass..... dis 75%
Hand, White Metal..... dis 60%
Hand, Silver Chime..... dis 20%
Hand, Globe (Cone's Patent)..... dis 25%
Gong, Abbe's..... dis 20%
Gong, Barton's..... dis 20%
Gong, Reading..... dis 20%
Pull, Brook's..... dis 20%
Crank, Taylor's..... dis 20%
Lever, Sargent's..... dis 20%
Bloomfield..... dis 20%
Lever, R. & E. M. Co's..... dis 20%
Call..... dis 20%
Cow, Common Wrought..... dis 25%
Cow, Western, Sargent's List..... dis 25%
Cow, Kentucky, Sargent's List..... dis 25%
Cow, Moore's or Dodge's, Genuine Ky., new list:
Nos. 0 1 1/2 2 3 5 6 Hog 1 60 &
\$12 \$10 \$9 \$8 \$7 \$6 \$5 \$4 \$3 \$2 \$1 10 &
Cow, Texas "Star"..... dis 40%

BELLOWS.
Blacksmith's Common..... dis 50%
Molder's..... dis 25%
Hand Bellows..... dis 25%

BLIND FASTENERS.
Francis..... dis 20%
Macrell's..... 10 doz pairs \$1.00, dis 10%
Van Sand's Screw Pattern..... 10 doz gross, net
Van Sand's Old Pattern..... 1 1/2, \$5; 1 1/2, 8.50; 1 1/2, 10.50
Merriman's..... new list, net
Zimmerman's, 10 1/2 in..... 10 gross \$24.00
Zimmerman's, 9 in..... 10 gross \$24.00
Zimmerman's, without screws..... \$5.00 less

BLIND STAPLES.
Barbed, 1/2 in. and larger..... 10 lb 11c net
Barbed, 3/4 in..... 10 lb 13c net

BLOCKS.
Penfield Block Co., Rope and Iron Strap'd..... dis 40%

BOLTS.
Cast Iron Barrel Shutter, &c..... dis 55%
Cast Iron Barrel (Sargent's list)..... dis 60%
Wrought Barrel..... dis 55%
Wrt. Shutter, all iron, Stanley's list..... dis 55%
Wrt. Shutter, Brass Knob, Stanley's list..... dis 55%
Wrought Shutter, Sargent's list..... dis 55%
Wrought Sunk Flush, Sargent's..... dis 55%
Wrought Sunk Flush, Stanley's..... dis 55%
Wrought K. K. Flush, Stanley's..... dis 55%
Carriage and Tire, Common, new list..... dis 75%
Carriage and Tire, Philadelphia Pattern..... dis 50%
Carriage Bolts, Clarke's..... dis 50%
Norway..... dis 75%
R. B. W. Carriage (old list)..... dis 65%
Tire, American Screw Co's., Phila..... dis 80%
Tire, "Bay State"..... dis 70%
Eagle Philadelphia Tire Bolt..... dis 8 1/2%
Stove..... dis 60%
Plow..... dis 50%
Machine..... dis 70%
Bolt Ends and Lag Screws..... dis 70%

BORAX.
15c 10 lb net.

BRACES.
Q. S. Backs..... dis 50%
Barber's..... dis 40%
Spofford's Patent..... dis 50%
Ive's Patent Braces..... dis 50%
Common Ball (American)..... dis 55%
Amidon's..... dis 50%

BORING MACHINES—WITHOUT AUGERS.
Sweet & Clark upright, 3.60 angular..... 4.40 net
Lawrence..... 3.00 net
Hubbard..... 3.00 net
Phillips, with Augers..... 7.00 net

BRACKETS.
Shelf, plain..... dis 50%
Shelf, fancy..... dis 55%

BRIGHT WIRE GOODS.
New list..... dis 70%
BULL RINGS.

Union Nut Co..... dis 55%
Sargent's..... dis 60%
Humason, Beckley & Co's..... dis 60%

BUTTS.
Wrought Brass..... dis 75%
Cast Brass, Fast Joint..... dis 20%
Cast Brass, Loose Joint..... dis 20%
Fast Joint, Broad..... dis 45%
Loose Joint, Broad..... dis 45%
Loose Joint, Japanned..... dis 60%
Loose Joint, Jap, with Acorns..... dis 60%
Parliament Butts..... dis 60%
Mayer's Hinges..... dis 60%
Loose Pin, no Acorn..... dis 60%
Loose Pin, Acorns..... dis 60%
Loose Pin, Acorns, Japanned..... dis 60%
Loose Pin, Acorns, Jap'd, Plated..... dis 60%

Wrought Iron.
Fast Joint, Narrow..... dis 60%
Fast Joint, L. Narrow..... dis 60%
Fast Joint, Broad..... dis 60%
Loose Joint, Broad..... dis 60%
Table Butts, Rack Flaps, &c..... dis 60%
Inside Blind, Regular..... dis 60%
Inside Blind, Light..... dis 60%
Loose Pin, Wrt..... dis 60%
Loose Pin, Light..... dis 60%

Spring Hinges.
Geer's Spring and Blank Butts..... dis 25%
Clarke Hardware Co's..... dis 25%
American Spring Hinge Co's..... dis 25%
Gem Spring Hinges..... dis 25%
Blind Butts, Shepard's, Nos. 50 and 60..... dis 70%
Blind Butts, Shepard's, No. 50..... dis 70%
Blind Butts, Shepard's, No. 75..... dis 70%
Blind Butts, Lull & Porter..... dis 70%
Blind Butts, Huffer..... dis 70%
Blind Butts, Clark's, Nos. 1, 3, 5..... dis 70%
Standard Lull & Porter..... dis 75%

BOW PINS.
Humason, Beckley & Co's..... dis 55%
Sargent & Co's..... \$19.70 and 21.40; dis 60%
Hotchkiss..... dis 25%

BUTCHER'S CLEAVERS.
Humason & Beckley Mfg. Co..... dis 25%
Bradley's..... dis 25%
Beatty's..... dis 25%

CAN OPENERS.
American..... 10 gross \$7.50, dis 10%
New Idea..... \$15.00 gross
No. 4, French..... dis 25%
No. 5, Iron Handle..... dis 25%
Sardine Scissors..... dis 25%
Sprague, No. 1, \$2; No. 2, 2.25; No. 3, 2.50; dis 50%
Universal..... dis 33%

CAPS, PERCUSSION, 1,000.
U. M. C., F. C. trimmed..... 10 doz \$10.00
U. M. C., F. C. ground..... 10 doz \$10.00
U. M. C., Double W. Proof..... 10 doz \$10.00
G. D. & S. B..... 33c. dis 10%
E. B. 1-10, Eley's..... 60c
Musket, in 1-10's..... 55c
Hicks Ground Edge in Brass Boxes..... 55c

CARTRIDGES.
Rim..... dis 50%
Central Fire, pistol wire..... dis 33%
"Military"..... dis 25%
B. B. Caps, Round Halls..... 1.75
"Swaged Conical"..... 1.90

NEW LIST ON CARTRIDGES.
Rim-fire, 22 short..... 5 long..... \$6.00
"32"..... 10 "..... 15.50
"38"..... 18 "..... 18.00
"41"..... 15 "..... 17.50
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.00.

CARINS.
Horse and Curry, new list, July, 1881..... dis 10%
Cotton, new list, July, 1881..... dis 10%
Wool, new list, July, 1881..... dis 10%

CASEY STRECHES.
Cast Steel, Polished..... 10 doz \$5.00, dis 30%
Cast Iron, Steel Points..... 10 doz \$2.00, dis 25%
Hullard's..... dis 25%

CANTERS.
Red..... dis 50%
Plate and Shallow Socket..... dis 50%
Deep Socket..... dis 25%
Martin's Patent (Phoenix)..... dis 25%

CATTLE LEADERS.
Humason, Beckley & Co's..... dis 60%
Sargent's..... dis 60%
P. S. & W..... dis 25%

CHAIN.
German Halter and coil Chain..... dis 50%
Trace, Breast and Fancy..... dis 45%
Oneca Halter Chain (old list)..... dis 45%
Galvanized Pump Chain..... 10 lb 8c net
Jack Chain, Iron..... dis 60%
Jack Chain, Brass..... dis 50%

CHALK.
White..... 10 gross 60c net
Red..... 10 gross 85c net
Blue..... 10 gross \$1.00 net
White Crayons..... 10 gross 9c net

COTTON LINES.
Cotton Fish Lines..... dis 33%
Cotton Chalk Lines, 30 feet:
Nos. 11, 13, 15, 17, 20, dis 33%
3.30, 3.60, 4.00, 4.50, 5.25, dis 33%

CHISELS.
Socket Framing, Crossman..... dis 65%
Socket Framing, P. S. & W..... dis 65%
Socket Framing, Douglass..... dis 65%
Socket Firmers, Crossman..... dis 65%
Socket Firmers, Ohio Tool Co..... dis 65%
Socket Firmers, Douglass..... dis 65%
Socket Corner..... dis 65%
Tanged Firmers..... dis 65%
Tanged Firmers, Butcher's..... \$5.00 @ \$5.25 to 6
I. Merrill's Socket and Framing Chisel..... dis 65%

CLAMPS.
Iron, Screw, Eagle..... dis 50%
Iron, Adjustable, Stearns'..... dis 20%
Iron, Cabinet, Sargent's..... dis 65%
Iron, Carriage maker's, Carr & Crawley..... dis 25%

CLIPS, AXLE.
Norway or Best..... dis 60%
Superior..... dis 45%
Conestogo..... dis 60%
Coal Hods—Griffiths'..... dis 40%

COCKS, BRASS.
Racking, new list, July 10, 1880..... dis 50%
Globe, new list, July 10, 1880..... dis 50%
Plain Bibbs, new list, July 10, 1880..... dis 50%
Ale and Beer, new list, July 10, 1880..... dis 50%

COFFEE MILLS.
Parker's..... dis 45%
Wilson's..... dis 50%
Logan & Strobridge..... dis 45%
Enterprise Mfg. Co..... dis 25%

COMPASSES, DIVIDERS, &c.
Compasses..... dis 55%
Calipers..... dis 55%
Dividers..... dis 55%
Cook's Pencil..... dis 10%

COOPERS TOOLS.
Bradley's..... dis 15%
Barton's..... dis 20%

CROW BARS.
Cast Steel..... 10 lb 6c
Iron, Steel Points..... 10 lb 4c

CURLING IRONS, &c.
1/2, 3/4, 1 in., \$1.80, 2.00, 2.50..... dis 10%
Curling Tongs..... 10 doz \$3.65, dis 10%
Pinching Irons..... 10 doz \$7.50, dis 20%

CURRY COMBS.
Fitch's new list..... dis 50%
Hotchkiss, Novelty, new list, July, 1880..... dis 25%
Hotchkiss, Excelsior Superior Champion..... dis 25%
Lawrence, "Perfect"..... dis 25%
Rubber..... 10 doz \$10.00, dis 25%
Sweet & Clarke..... dis 50%
Lusters..... dis 25%

CURTAIN PINS.
Silvered Glass..... net
White Enamel..... net

CUTLERY.
Association (Table)..... net
Nauvauk Cutlery Co..... list net
Excelsior Knife Co..... net
Wilson's Butcher and Shoe Knives..... dis 30%
Wm's Shoe Knives..... dis 15%
Wm. Rogers Mfg. Co., Plate Cutlery..... Net

DOG COLLARS.
Embossed Gilt..... dis 20%
Leather..... dis 20%
Brass..... dis 25%

DOOR SPRINGS.
Torrey's Rod, regular size, 10 doz., \$3..... dis 40%
Gem (Coil):
No. 1, Large Japanned..... 10 doz \$4.00
No. 2, Medium Japanned..... 10 doz 2.75
No. 3, Small Japanned..... 10 doz 2.00
No. 4, ("Shoo Fly") Screen door size, 1.50
No. 5, Screen door size..... 2.00
No. 6, Medium..... 2.75
No. 7, Large..... 4.00
Standard—10 doz \$1.25; 9 doz \$1.75..... dis 50%
8 doz 2.50; 6 doz \$3.50..... dis 50%
Hercules..... dis 50%

DRAWING KNIVES.
Ohio Tool Co..... dis 60%
Crossman's No. 1..... dis 65%
Nobles Mfg. Co..... dis 15%
Bradley's..... dis 35%
Adjustable Handle..... dis 20%
P. S. & W..... dis 70%
Douglass..... dis 70%

DRILLS AND DRILL STOCKS.
Blacksmith's..... each, \$2.50, dis 10%
Blacksmith's Self-Feeding..... each, 7.50, dis 20%
Breast, P. S. & W..... dis 20%
Breast, Wilson's..... dis 20%
Breast, Millers Falls..... each, \$3.00, dis 25%
Breast, Bartholomew's..... each, \$2.50, dis 25%
Wilson's Drill Stocks..... dis 10%
Automatic Boring Tools..... each, \$2.25, dis 20%

EGG BEATERS.
Dover..... 10 doz \$2.50, dis 25%
Medallion..... 10 gross \$10.00
Victoria..... 10 gross \$10.00

EMERY AND EMERY PAPER.
Regular numbers..... 10 lb 6c
Flour and F. F..... 10 lb 4c
B. & A. Emery Paper..... dis 30%

ENAMELED AND TINNED WARE.
Kettles..... dis 60%
Sauce Pans..... dis 40%
Tinned Sauce Pans..... dis 40%
Escutcheon Pins—Brass..... dis 50%

ESCUATCHONS.
Door Lock..... Same discounts as Door Locks
Brass Thread..... dis 25%
Wood..... dis 25%

FAUCETS.
Fenn's..... dis 40%
Fenn's Cork Stops..... dis 33%
Fenn's Patent Petroleum..... dis 20%
West's Patent Key..... dis 45%
Anchor Lock..... dis 45%
Metallic Key, Leather Lined..... dis 60%
Cork Lined..... dis 70%
J. Sommer's Best Metallic Key..... dis 40%
J. Sommer's Cork Lined, 1st quality..... dis 50%

FILES.
E. M. Boynton's..... new list, dis 25%
Western File Co's..... dis 45%
Butcher's..... \$4.50 to 6
Moss & Gamble..... \$4.50 to 6
H. Diston & Sons (new list)..... dis 40%
Heller Bros.' Horse Rasps..... dis 30%
Nicholson..... dis 50%
New American..... dis 50%
Union File Co..... dis 45%
Stubs, new list..... \$7.50 to 6, 25% off

FLUTING MACHINES.
Knox, 1/4-inch Rolls..... \$3.50 each | dis 35%
Knox, 5-inch Rolls..... \$4.00 each | dis 35%
Knox, 8-inch..... \$6.50
Eagle, 3/4-inch Roll..... \$1.50, dis 35%
Eagle, 1/2-inch Roll..... \$1.50, dis 35%
Crown, 1/2-in., \$3.50; 6-in., \$6.50 each..... dis 35%
Crown Jewell..... 6-in., \$3.40 each..... dis 35%
American, 5-in., \$3.40; 6-in., 7-in., \$4.50 each..... dis 35%
Domestic Fluter..... \$1.50 each, net
Geneva Hand Fluter, White Metal, 10 doz \$12.50
Crown Hand Fluter, No. 1, \$15; 2, \$12.50
3, \$10.50; 4, \$8.25; 5, \$7.50; 6, \$7.50; 7, \$7.50; 8, \$7.50
Combined Fluter and Sad Iron, 10 doz \$15.00, dis 30%

FORES.
Lawson & Brenizer..... dis 50%
Remington..... dis 50%
Sheble & Fisher..... dis 50%

FRY PANS.
Burnished list as follows..... dis 60%
No..... 0 1 2 3 4 5 6 7 8
10 doz. \$3.00 3.75 4.25 4.75 5.25 6.00 7.00 8.00 9.00

GAUGES.
Marking, Stanley's..... dis 50%
Marking, Chapin's..... dis 55%
Wire..... dis 10%
Wire, Diston's..... dis 20%
Wire, Wheeler, Madden & Co..... dis 20%

GIMLETS.
Nail and Spike..... dis 40%
"Eureka" Gimlets..... dis 50%
"Diamond" Gimlets..... dis 50%
Double Cut, Shephardson's..... dis 50%
Double Cut, Hartwell's..... dis 50%
Double Cut, Ives'..... dis 50%
Double Cut, Douglass..... dis 33%
"Reel"..... 10 doz \$12.00, dis 25%

GRINDSTONE FIXTURES.
Tinned and Enameled..... dis 35%
Family, Howe's "Eureka"..... dis 25%
Family, L. F. & C.'s "Handy"..... dis 30%

GUN WADES.
Sargent's Patent..... dis 15%
Reading Hardware Co..... dis 25%

HAMMERS.
Eley's B. E. wads, 11 upwards..... \$1.75
" " " 9 and 10..... 2.00
" " " 7 " 8..... 2.25
" " " 11 upwards..... 2.50
" " " 9 and 10..... 3.00
" " " 7 " 8..... 4.45

HARTFORD HAMMER CO.
Maydole's..... dis 15%
Hartford Hammer Co..... dis 25%

Magn'c Tack, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552,

LAWN MOWERS.
Acme Buckeye, Easy and Excelsior, new list, dis 40 %
LINES.
Linen Fish.....dis 25 & 10 %
Wire Clothes, Galvanized, 100 feet.....dis 3.00
LOCKS AND LATCHES.
Cabinet, Eagle.....Changes made in list price
Cabinet, Gaylord.....of some numbers Jan. 1,
Cabinet, Bridgeport.....1881, dis 25 & 2 %
Cabinet, P. & F. Corbin.....dis 40 %
Trunk, new list, Jan 1, 1881.....dis 15 & 2 %
Vale Lock Co., Flat Key.....dis 40 %
Plate.....dis 33 1/2 %
DOOR LOCKS, ETC.
Bradford
Norwalk.....List prices as revised
Norwich.....Dec. 10th, 66 1/2 %
P. & F. Corbin.....for cash.
Russell & Erwin.....
Mallory, Wheeler & Co.....dis 66 1/2 %
Padlocks—Russell & Erwin.....and 5 % for cash.
Mallory, Wheeler & Co.....
Norwich Lock Manf. Co.....
Wm. Wilcox & Co.....dis 33 1/2 %
Wm. Wilcox & Co's Plate Locks.....dis 40 %
Vale Lock Manf. Co's "Standard".....dis 40 %
Romer's.....dis 25 & 40 %
Conestoga.....dis 75 %
Scandinavian, "Norwich".....dis 50 & 10 %

MALLETS.
Penfield Block Co., Apple, Hickory and
Lignumvitae.....dis 30 %
MEAT CUTTERS.
Dixon's (P. S. & W.) Nos. 1 2 3 4.....
Perry's, Nos. 1 2 3 4 5 6 7 8 9 10.....
Woodruff's (P. S. & W.) Nos. 100 150.....
Hales' Nos. 11 12 13.....
Kieser's No. 55.....dis 35 1/2 %
Kieser's Gem.....dis 40 %
Kieser's No. 82.....dis 40 %
Kieser's Monarch.....dis 40 %
Beef Shaver, (Enterprise Manf. Co.).....dis 25 %

MOLASSES GATES.
Stebbins Patterns.....dis 70 & 10 %
Stebbins Genuine.....dis 67 1/2 %
Stebbins Tinned Ends.....dis 40 & 10 %
Chase's Hard Metal.....dis 50 & 10 %
Self-Measuring, (Enterprise).....dis 20 %
Lincoln's Pattern.....dis 60 & 10 %
Weed's.....dis 15 %
Boss Nos. 1 2 3 4.....dis 10 %
Boss, Japanned Finish.....dis 60 & 10 %
Boss, Bronze Finish.....dis 60 & 10 %

NUTS AND WASHERS.
Square Nuts.....8 c off list.
Hexagon Nuts.....8 1/2 c off list.
Washers.....7 1/2 c off list.
OILERS.
Zinc and Tin.....dis 60 & 10 %
Brass and Copper.....dis 50 %
Malleable (Hammer's).....dis 45 %
PINKING IRONS.
Per dozen.....75 cts. net

PLATING MACHINES.
Astor Plating Machine.....each \$15, dis 20 %
Crown Plating Machine.....dis 25 %
6 in., \$6; 10 in., \$8 each.
PLANES AND PLANE IRONS.
Bench, First Quality.....dis 20 %
Bench, Second Quality.....dis 25 %
Molding.....dis 15 %
Bailey's (Stanley R. & L. Co.) New list, Jan.
1879.....dis 20 & 10 %
The Stanley (S. R. & L. Co.) new list,
January 1879.....dis 20 & 10 %
Bailey's.....dis 20 & 10 %
Plane Irons, Butcher's.....dis 50 %
Plane Irons, Auburn Tool Co.....dis 20 %
Plane Iron, Ohio Tool Co.....dis 20 %
Plane Irons, Sandusky Tool Co.....dis 20 %

FLIPS AND NIPPERS.
Buton's Patent.....dis 33 1/2 %
Hall's Pat. Compound Lever Cutting Nippers,
No. 2, 5 in. \$13 50; No. 4, 7 in., \$21 50, dis 25 %
Gas Pliers.....dis 30 %
PLUMBS AND LEVELS.
Disston's.....dis 40 %
Stanley R. & L. Co.'s Pat. Adjustable.....dis 65 & 10 %
Stanley R. & L. Co.'s Non-Adjustable.....dis 65 & 10 %
Chapin's Patent Adjustable.....dis 65 & 10 %
Chapin's Non-adjustable.....dis 65 & 10 %
Standard Rule Co.'s New Adjustable.....dis 65 & 10 %
Standard Rule Co.'s Non-Adjustable.....dis 65 & 10 %
Pocket Levels.....dis 65 & 10 %

RAIL.
Sliding Door, Wrought Brass.....dis 43c. dis 30 %
Sliding Door, Bronzed Wrt. Iron.....dis 35 %
Sliding Door, Iron, Painted.....dis 40 %
Barn Door.....dis 35 %
Per 100 feet.....dis 3.60 3.60 5.60 10 %
B. D. for N. E. Hangers.....Small. Med. Large.
Per 100 feet.....dis 2.10 2.70 3.00 net.

RIVETS.
Iron and Tinned, new list, Dec. 10, 1881.....dis 40 %
In bulk, new list, Dec. 10, 1881.....dis 40 %
Copper Rivets and Burrs.....dis 50 & 10 %
Nos. 7 8 9 10 11 12 13 14 15.....
dis 49c. 50c. 52c. 54c. 56c. 58c. 60c. 62c. 70c.
RIVET SETS.....dis 40 %
RODS.
Stair, Brass.....dis 25 %
Stair, Black Walnut.....dis 60c. dis 40 % net.

RULES.
Chapin's.....Boxwood. Ivory.
Standard.....dis 75 %
Stanley.....dis 40 & 10 %
Stevens & Co.....dis 70 & 10 %
Stevens & Co. Miscellaneous.....dis 50 & 10 %
SAD IRONS.
Self-Heating, Charcoal.....dis 9.00 net
Mrs. Pott's Irons.....dis 35 %
Enterprise Star Irons, new list, July 20, '80.....dis 35 %
Comb'd Fluter and Sad Iron.....dis 15 %
Common Sad Irons.....dis 25 %

SAND PAPER.
Baeder & Adamson's Flint, 00@1 1/2.....\$4.50 r'm.
Baeder & Adamson's Flint, 2, 2 1/2 @ 3.....5.00 r'm.
Baeder & Adamson's Flint, Assort'd 4-7 1/2 r'm.
Baeder & Adamson's Star.....3.75 r'm.
Baeder & Adamson's Emery r'm \$6.50@11.50
J. Bartle's Sand, Flint and Emery Paper.....dis 30 & 5 %
SASH CORD.
Common.....dis 18c. net
Patent.....dis 17c. net
Silver Braided Lake Hemp.....dis 50c. dis 10 %
Silver Braided Lake White Cotton.....dis 50c. dis 10 %
Silver Braided Lake Crab Cotton.....dis 50c. dis 10 %
Silver Lake Cable Laid, Bengall Unbleached
Hemp, 17 cts.....dis 10 %
Russian Hemp, 19 cts.....dis 10 %
Italian Hemp, 34 cts.....dis 10 %

SASH WEIGHTS.
Solid Eyes, in 500 lb. lots and over, dis 1 1/2 c. net
SAUSAGE STUFFERS OR FILLERS.
Miles.....dis 30c. dis 25 & 5 %
Perry.....dis 30c. No. 15; No. 0, dis 35 %

Enterprise Mfg. Co......dis 25 %
Monarch.....dis 40 %

SAWS.
Boynnton's Lightning Cross Cuts, new list.....dis 40 %
Boynnton's Circular and Mill.....dis 40 %
Boynnton's Ice.....dis 25 %
Boynnton's Lightning Hand, Panel and Rip.....dis 25 %
Disston's Circular.....dis 40 %
Disston's Mill.....dis 40 %
Disston's Cross Cut.....dis 40 %
Disston's Hand, Panel, Rip, &c.....dis 20 %
Hubbard, Bakewell & Co. Circular Saws.....dis 40 & 5 %
Hubbard, Bakewell & Co. Cross Cut.....30c. ft.
Hubbard, Bakewell & Co. One-Man's, X Cut.....dis 40 & 5 %

Hubbard, Bakewell & Co., Mill Saws.....dis 40 & 5 %
Peace Circular and Mill.....dis 40 %
Peace Hand, Panel and Rip.....dis 25 %
Peace Cross Cuts.....dis 35 %
Peace Band Saws, all widths.....dis 10 %
Webster Cross Cut, with handles.....dis 25 & 10 & 10 %
Griffin's Hack Saws and Blades.....dis 30 %

SAW FRAMES.
White.....dis 1.05, dis 10 %
Saw Rods.....dis 1.10 list, dis 10 & 10 %
SAW SETS.
Stillman's Genuine, dis 3.50 and 5.50.....dis 10 %
Stillman's Imitation.....dis 3.25, dis 30 & 10 %
Common Lever.....dis 2.00, dis 30 & 10 %
Leach's.....No. 0, \$8.00; No. 1, \$15; dis 15 %
Hammer, Hotchkiss.....\$5.50, dis 10 %
Aiken's Genuine.....\$13.00, dis 50 & 10 %
Aiken's Imitation.....\$7.00, dis 50 %
Disston's.....dis 20 %
Morrill's.....No. 1, \$15; No. 5, \$32; dis 35 & 10 %

SCALES.
Hatch, Counter, No. 171.....dis 42c. dis 37 1/2 %
Hatch, Tem. No. 161.....dis 35c. dis 37 1/2 %
Union Platform, Keystone.....dis 45 %
Chicago Scale Co.....Special dis
Fairbanks.....dis 20 %
Forsyth Scale Co.....dis 45 %
Howe's.....dis 20 & 10 %
Chattillon's Grocers'.....dis 40 %
Chattillon's Eureka.....dis 25 %
Family Universal.....dis 50 %
Family Favorite.....dis 30 %
Family Turnbull's.....dis 30 %
Scale Beams, List of Jan. 12, 1882.....dis 50 %

Adjust. Box Scraper (S. R. & L. Co.) \$6.50, dis 20 & 10 %
Box, 1 Handle.....dis 4c. dis 10 %
Box, 2 Handle.....dis 4c. dis 10 %
Foot.....dis 45 & 10 %
Ship, common.....dis 20 %
Wilson Mfg. Co.....dis 10 %

SCREW DRIVERS.
Douglas Mfg. Co.....dis 20 & 10 %
Disston's.....dis 40 %
Cowles Mfg. Co.....dis 50c. dis 10 %
Stanley Rule & Level Co's. Var. Hdl's.....dis 50 & 10 %
Stanley Rule & Level Co's. Black Hdl's.....dis 40 & 10 %
Ratchet.....dis 33 1/2 %
Clark's Patent.....dis 25 %
Shepardson.....dis 25 %

SCREWS.
Flat Head Iron, A. S. Co's list, Jan. 1, '85, dis 80 & 5 %
Round Head Iron.....dis 75 & 10 %
Flat Head Brass.....dis 25 & 10 %
Round Head Brass.....dis 25 & 10 %
Flat Head Blued, add 2 1/2 % to net of invoice.
Brass and Silver Capped.....dis 40 %
Japanned, list of Plain Screws.....dis 72 1/2 %
Coach, Patent Gimlet Point.....dis 75 %
Coach, Common or Lag.....dis 60 & 10 %
Red.....dis 10 %
Machine, Flat Head, Iron.....dis 55 %
Machine, Round Head, Iron.....dis 50 %
Hench, Iron.....dis 50 & 10 %
Hench, Wood, Beach.....dis 30c. dis 10 %
Hench, Wood, Hickory.....dis 20 & 10 %
Hench, Wood.....dis 20 & 10 %
Hand Rail, Sargent's.....dis 60 & 10 %
Hand Rail, Humason, Beckley & Co's.....dis 40 & 10 %
Hand Rail, Am. Screw Co., list Jan. 1, '81.....dis 70 %
Jack (Wilson's).....dis 25 %

SCRIPPER FRAMES AND FIXTURES.
Standard Window Screens No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

PER DOZ. SETS.
In Im. Bl'k
White. Walnut.
No. 20.....\$3.75 \$3.25
No. 21.....2.25 4.00
No. 22.....5.50 6.75
No. 23.....6.00 7.50
No. 30.....9.00 11.00
Porter's Corners—
No. 0. Corners and Sticks complete for a
three-foot window, dis 40 sets, Bronzed,
No. 1 1/2 " " " " " " \$2.40; Nickel, \$5.62
No. 1 1/2 " " " " " " \$2.25; Nickel, \$7.50
No. 4 " " " " " " \$1.00; Nickel, \$8.00
No. 5 " " " " " " " or doz sets, Bronzed,
Bronzed, \$1.20; Nickel, \$3.00
No. 4 1/2 " " " " " " " or doz sets,
Bronzed, \$2.00; Nickel, \$4.00
No. 2 1/2 " " " " " " " or doz sets, Bronzed,
\$6.75; Nickel, \$15.00
No. 3 " " " " " " " or doz sets, Bronzed,
\$12.00; Nickel, \$24.00

SHREARS AND SCISSORS.
American (Cast) Iron.....dis 70 & 10 %
Pruning.....see Pruning Hooks and Shears
Barnard's Lamp Trimmers.....dis 14c. dis 10 %
Tinners'.....dis 45 %
Massachusetts.....dis 60 & 10 %
Seymour's.....dis 60 & 10 %
Jersey Shears.....dis 80 %
J. Wiss & Son, Nickel, 50 & 5 %; Japanned, 60 & 5 %

SHREAVES.
Sliding Door, M. W. & Co., List.....dis 45 & 2 %
Sliding Door, R. & E. list.....dis 60 & 10 & 2 %
Sliding Door, Patent Roller.....dis 60 & 10 & 2 %
Sliding Door, Pt. Roller, Hatfield's.....dis 60 & 10 & 2 %
Sliding Door, Russell's Anti-Friction.....dis 60 & 10 & 2 %
Also see Hangers.

SHOVELS AND SPADES.
Ames, New List, July 1, 1881.....dis 15 %
Griffiths.....dis 50 & 5 %
Remington's (Lowman's Patent).....dis 30 %
Rowland's.....dis 60 %
Kimball's.....dis 35 %
Lippincott, new list.....dis 20 %
Hussy, Bins & Co.....dis 15 %

SPOKE TRIMMERS.
Bonney's.....dis 10c. dis 40 & 5 %
Stearns'.....dis 10c. dis 20 & 10 %
Ives'.....No. 1, \$15; No. 2, \$12 1/2; dis 55 & 10 %
Douglass'.....dis 10c. dis 15 %

SILVER PLATED WARE.
Wm. Rogers Manf. Co.....dis 50, 50 & 5 %
Holmes, Booth & Hayden.....dis 40 & 10 & 5 %
Brown Bros.....dis 40 & 10 & 5 %
Wallace's Steel Silver Plated.....dis 33 1/2 %
Rogers Bros 1847.....dis 50 %
C. Rogers & Bt.....dis 40, 10 & 5 %

SILVER PLATED HOLLOW WARE.
Wm. Rogers Manf. Co.....dis 40, 15 & 5 %
Meriden Britannia Co.....dis 33 1/2 %

SPOONS.
Britannia.....dis 60 & 10 %
Tinned, Iron, Table and Tea.....dis 65 %
Tinned Iron Hasting.....dis 65 %
German Silver.....dis 40 %

STONE.
Hindustan No. 1, 30c.; Axe, 8c.....net
Sand Stone.....dis 33 1/2 & 10 %
Washita Stone.....No. 1, 10c. net
Washita Stone, Slips.....No. 1, 10c. net
Arkansas.....\$1.50 10c. net

SQUARES.
Steel.....dis 50 %; full cases, dis 50 & 10 %
Iron.....dis 50 %; full cases, dis 50 & 10 %
Nickel Plated.....dis 50 & 10 %
Try Square and T Bevels.....dis 50 & 10 %
Disston's Try Square and T Bevels.....dis 40 %

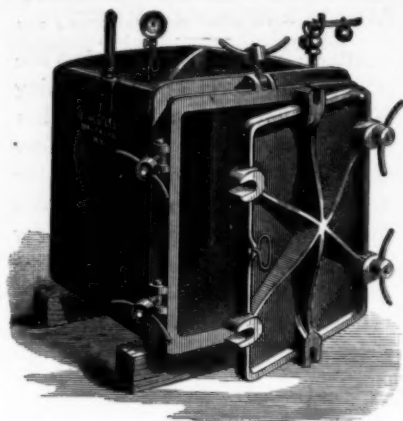
TACKS, BRADS, AC.
New List, Sept. 1, 1882.
Tinned Swedes Tacks.....dis 50 %
Tinned American Tacks.....dis 50 %
Swedes Tacks, all kinds.....dis 50 %
American Cut Tacks.....dis 50 %
Copper Tacks and Nails.....dis 50 %
Hungarian Nails.....dis 30 %
Gimp and Lace Tacks.....dis 30 %
Gimp and Lace Tacks, Tinned.....dis 30 %
Finishing Nails.....dis 40 %
Trunk and Clout Nails.....dis 30 %
Common and Patent Brads.....dis 30 %
Basket Nails.....dis 30 %
Brush Tacks.....dis 20 %
Leathered Carpet Tacks.....dis 20 %
Cigar Box Nails.....dis 40 %
Chair Nails.....dis 30 %
Double-pointed Tacks.....dis 70 & 10 %

TAP BORERS.
Common and Ring.....dis 20 %
Ives' Tap Bore.....dis 15 & 10 %
Enterprise Mfg. Co.....dis 25 %

TOBACCO CUTTERS.
Enterprise Mfg. Co (Champion).....dis 25 %
Wood Bottom.....dis 12c. dis 40 & 5 %
All Iron.....dis 20c. dis 40 & 5 %
Wilson's.....dis 35 %

THERMOMETERS.
Tin Case.....dis 75 & 10 %
Storm Glasses.....\$3.25 10c. dis 5 %
TOE CALKS.
Winsted.....dis 10c. dis 5 %

TRAPS.
Game, Newhouse.....dis 35 %
Game, Oneida Pattern.....dis 60 & 10 %
Game, Blake's Patent.....dis 40 & 10 %
Mouse, Wood,



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Cutting, Drawing, Stamping, Embossing, Reducing & Punching

Presses and Dies

For Working all Shapes and Classes of Sheet Metal.

DOUBLE SEAMING MACHINES FOR ROUND, SQUARE AND OVAL CANS.

Hand and Power Circular Shears. Foot and Power Squaring Shears.

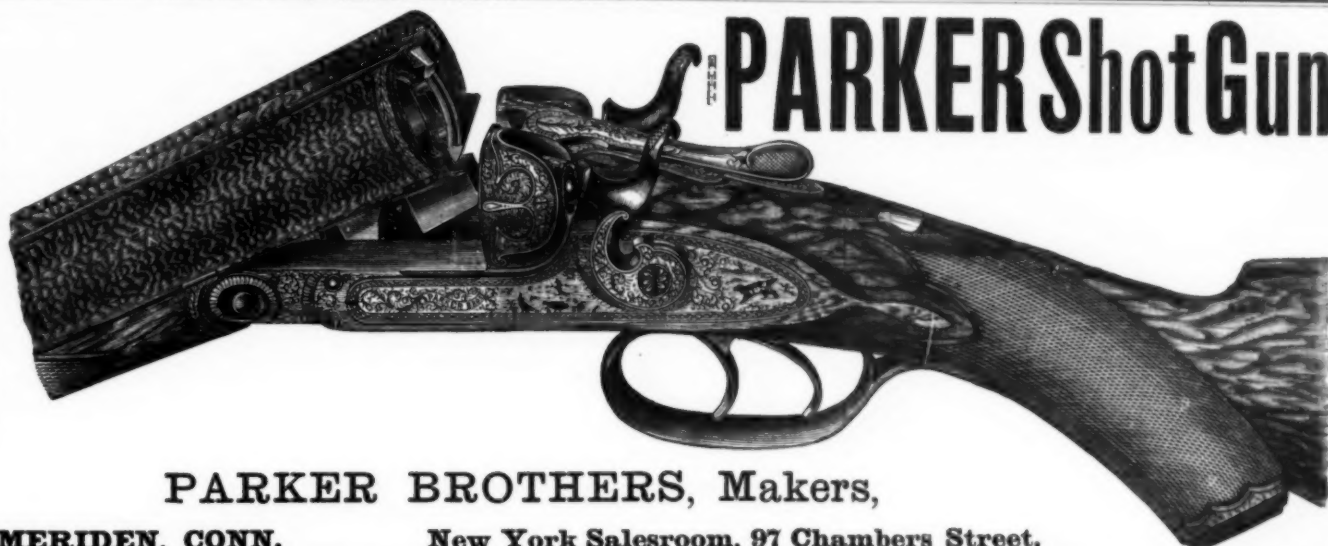
CANNING MACHINERY

Steam Chests, Can Fillers, Soldering Machines, Engine Lathes, Shapers and Milling Machines. Special Machinery of Every Description for Manufacturing Sheet-Metal Goods.

— 143 Plymouth Street, BROOKLYN, N. Y. —



Report of the International Gun Trial, held at Bergen Point, N. J., April 3, 1884. Extract from *Turf, Field and Farm* reporting the same: "The Parker Gun, our prominent home manufacture, won the admiration of all by its fine shooting qualities. It registered in both the 10 and 12-bore classes; the greatest number of pellets in the 30-inch circle, and therefore must be awarded the palm for pattern."



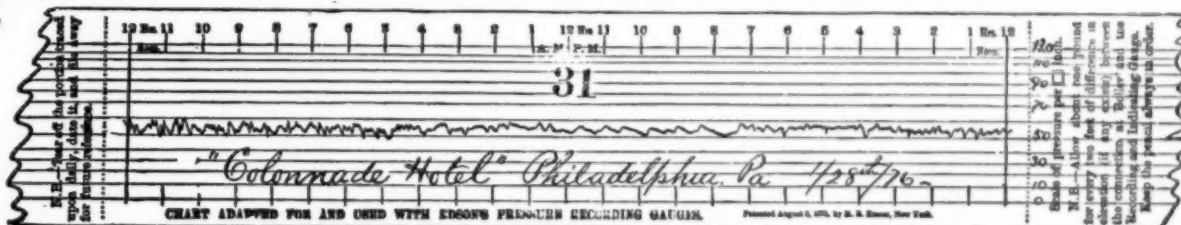
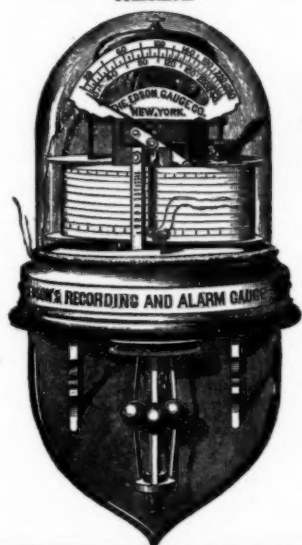
PARKER BROTHERS, Makers,

MERIDEN, CONN.

New York Salesroom, 97 Chambers Street.

EDSON'S STEAM RECORDING GAUGE AND ALARMS.

SAFETY GAUGE FOR OFFICE, with Speed Recording attachment combined.



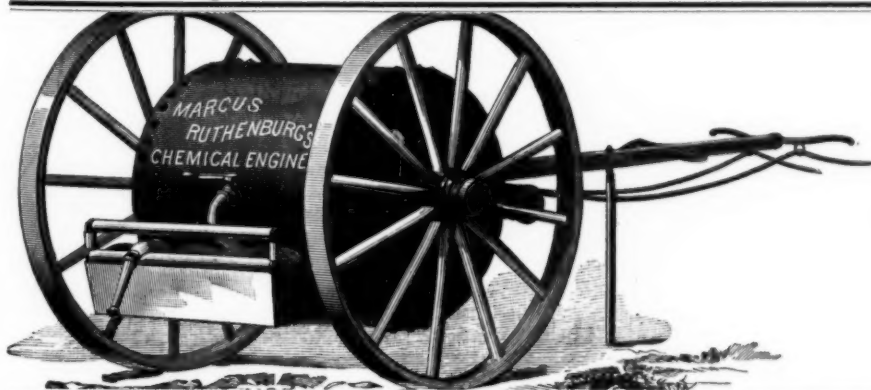
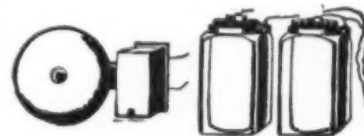
• Edson's Standard Gauges are alike adapted for STEAM, "high" VIBRATING CONG AND BATTERY, and "low" pressure, WATER, OIL and GAS, in reservoirs, pipes, etc., and are indispensable to SAFETY AND ECONOMY.

The Alarm Gong, by ringing at the boiler, PREVENTS EXPLOSION, and SAVES BOTH LIFE AND PROPERTY.

The Charts are useful when inspecting Boilers for evidence of work done by those in charge.

The Speed of Dynamo Machines, also of Locomotives, should be recorded.

For Descriptive pamphlet, address THE EDSON RECORDING AND ALARM GAUGE CO., 91 Liberty Street, New York.



THERE IS NOT a town, village or large mill in the land that can afford to be without the protection from fire afforded by this Chemical Engine. Always ready for instant use. Simple, substantial and efficacious. Write for circulars to

THE RUTHENBURG
Automatic Fire Extinguishing & Engineering Co.

64 West Third Street, Cincinnati, O.

MARCUS RUTHENBURG, Manager.

STANDARD COAL CO.

MINERS AND SHIPPERS OF

JELLICO MOUNTAIN COAL 56 Clinch Street, - - - Knoxville, Tenn.

SCREENED LUMP COAL for steam and machinery purposes a specialty. For prices and freights, address

E. E. McCROSKEY, Prest.

Mr. Charles L. Hartsfeld's Portable Blast Furnace for Smelting Precious Metals.

[From Kentucky State Journal, Newport, Ky.]

The proficiency of the above named furnace commends itself to all, as something that has long been needed in all the mining territories, as it can be moved with very little expense and the plant is not expensive.

Science constantly adds improvements for the production and extraction of our precious metals, by which now ordinary or low grade ore can be successfully reduced and separated in one operation, by natural gravity and without crushing or stamping mills, which are not required by this process. The following description is taken from the Scientific American, published in New York City:

"Mr. Charles L. Hartsfeld, of Newport, Ky., a practical and famed furnace builder from Pomeria, Europe, has invented a portable blast furnace for smelting iron, copper, iridium, platinum, jasper, galena, silver, gold, nickel, zinc, tin, manganese, bismuth, chrome and other ores, and has during the last year won ground in Austria, Hungary, Russia, Norway and Sweden, Holland, Belgium, France and Germany, and is now being introduced in England, Scotland, South Wales, Australia, South America and the United States.

An illustration is hardly required, considering the simplicity of the principle on which the furnace is constructed.

The novelty consists chiefly in the cooling of the smelting furnace by water, without using an air tight water space. The inner cylinder can expand and contract without any resistance as to the temperature; the consequence is that repairs are hardly ever required. The smelting process can therefore be kept up continuously without interruption, the upper part of the furnace never gets hot and the coke or wood does not begin to burn until it arrives at the lower part, where the smelting process takes place at once, by a very strong blast."

Engineering says: "This Scotch hearth reverberatory, A. Sieman's type-like furnace, much improved by Mr. Charles L. Hartsfeld, a practical expert and builder, has been and is in constant operation throughout Europe, always remains round and smooth throughout, which is a very important feature; also with regard to economy of coke and other fuel, it is likewise unaffected by any chemical action, by the fact that this furnace admits of an addition of any quantity of basic substances without any risk of damage."

The following is an abstract from a report, published by Das Vogische Volksblatt, on the cost of reducing ores to metal; 96 per cent. of mineral actually converted into metal out of every 100 taken from the Hartsgebirge, at Clausenthal, Schlesia, argentiferous silver ores. The analysis, as made by the eminent practical chemist, Mr. David Stuart's report for the Austro Hungarian Government at Vienna, is as follows: Clausenthal mine, shaft No. 24.

Nickel.....	2.06
Silica.....	15.21
Alumina.....	3.21
Manganese.....	4.45
Copper.....	7.06
Sulphur.....	12.14
Lime.....	0.74
Potash.....	1.87
Galena.....	39.51
Blende.....	8.10
Silver.....	4.30
Gold.....	0.10
Water and loss.....	1.35
100.00	

The cost of reducing ore by the new water jacketed furnace, built by Mr. Charles L. Hartsfeld, formerly in Colorado and other mining districts in the United States of America, in a No. 4 furnace of 50 tons capacity every 24 hours, was as follows:

Pine wood, 10 cords at 9 marks a cord, 90 marks, equal.....	\$22.50
10 Laborers, at 3 marks a day, 30 marks, equal.....	7.50
2 Engineers, at 6 marks, 40 pfening, equal.....	3.50
4 Teams, at 8 marks a day, 32 marks, equal.....	8.00
Extras daily, 38 marks, equal.....	9.50

Total cost per 24 hours, 203 marks, 80 pf. \$51.00
The value of the ore per ton is \$72; the daily capacity, of fifty tons, makes.....\$3,600
Deduct cost of smelting, \$51, leaves a daily net profit of..... 3,549
(or 14,196 marks.)

The total weight of a 50 ton furnace set up complete is 12,400 lbs., and its size, 7x29 feet.

The capacity of the smallest furnace built is 5 tons in 8 hours, and its weight is 1,600 lbs. Its size is 2 feet 3 inches in diameter by 7 feet 6 inches in height.

These portable blast furnaces will be constructed in Cincinnati foundries ready to be sent to the mines. Experts claim them to be invaluable, as there are no brick used in the construction, and they can be easily transported over the mountains, where ore lies in scattered masses, mined by nature itself. The highest authorities speak of the furnace as something that has long been needed, and the Scientific American and others give it a hearty indorsement.

List of Patents

The following Patents were granted to citizens of the Southern States, bearing date May 19, 1885. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Aiken, Wm., Louisville, Ky. Sand molding machine.....	318,341
Barringer, D. M., Bennettsville, S. C. Plow.....	318,160
Brown, O. H. P., Clarksville, Ark. Peach pitter.....	318,966
Bryant, R. P., and J. H. Gilleland, Jacksonville, Ala. Railway tamper.....	318,163
Bunn, J. H., Henning, Tenn. Seed-planter.....	318,968
Burnet, W. R. H., Matthews, N. C. Cotton cultivator.....	318,415
Caldwell, B. F., Wheeling, W. Va. Cap and anchor for metallic roofing.....	318,352
Connelly, W. E., Hubbard, Tex. Gate.....	318,087
Crabb, J. T., Eminence, Ky. Hitching device.....	318,169
Daingerfield, Henrietta H., Harrisonburg, Va. Adjustable and reversible foot-rest.....	318,978
Daves, J. F., near Tupelo, Miss. Combined agricultural implement.....	318,171
Davis, C. R., Dallas, Tex. Bed-spring.....	318,092
Davis, R. L., Mooresville, N. C. Car-transfer apparatus.....	318,360
Deering, Wm., Louisville, Ky. Cotton-gin.....	318,362
Eidelbach, A. C., Flatonia, Tex. Saw-sharp-ening machine.....	318,363
Eisner, Jos., Baltimore, Md. Drawers, Overalls and pantaloons.....	317,982
Emerson, F. J. J., and J. L. Faures and J. R. Cummins, McKinney, Tex. Plow.....	318,096
Gillespie, J. U., Belmont, Ala. Cultivator.....	318,178
Hampl, Joseph, and D. Jacobs, Ft. Clark, Tex. Car-coupling.....	318,184
Haydn, Geo., Baltimore, Md. Fluid-ejector for draining cellars.....	318,185
Leder, George, Demopolis, Ala. Apparatus for extracting oil from cotton seed.....	318,191
Lushbaugh, W. H., Covington, Ky. Tent.....	318,382
May, J. B., Lexington, Ky. Gate.....	318,386
Mayfield, W. D., Ft. Worth, Tex. Street-car.....	318,274
McGovern, Geo., Richmond. Combined key-hole guard and cigar-cutter.....	318,275
Northen, Thomas, Lineville, Ala. Combined sweep, cotton-chopper and dirter.....	318,197
Peck, Felix G. C., Philomath, Ga. Household furniture.....	318,132
Perkins, M. T., Mt. Sterling, Ky. Hinge for gate.....	318,288
Pitard, J. H., Mobile, Ala. Brake-shoe.....	318,203
Price, W. R., Still Pond, Md. Fire-escape.....	318,391
Read, O. D., Davies Co., Ky. Lap-ring.....	318,292
Repp, Ephraim B., and G. H. Brown, New Windsor, Md. Top for fruit-jars.....	318,029
Scott, A. E., Lone Grove, Tex. Seed-planter.....	318,311
Seabrook, Wm., Edisto Island, S. C. Mouth-piece for pipes.....	318,210
Shearer, W. C., Atlanta, Ga. Locomotive-engine.....	318,313
Strickland, Ansel, Cumming, Ga. Cash-carrier.....	318,320
Taylor, Benjamin, Morrilton, Ark. Spring frame for beds, &c.....	318,219
Toglio, Peter, Charleston, S. C. Manufacture of imitation brick weather-boarding.....	318,054
Weatherly, A. M., Selma, Ala. Journal-bearing.....	318,334
Witherow, J. T., Jr., Huntsville, Ark. Automatic railway gate.....	318,069

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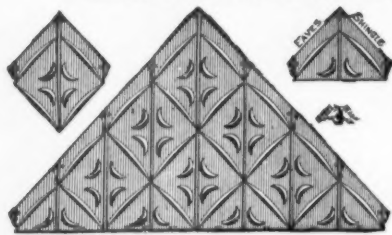
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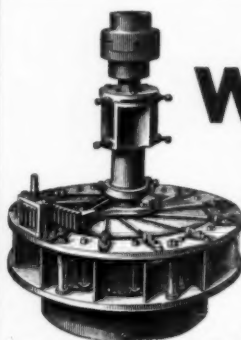
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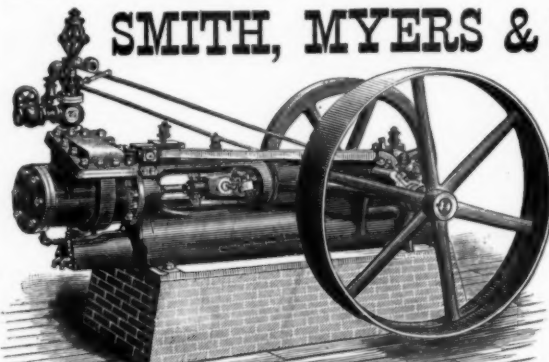
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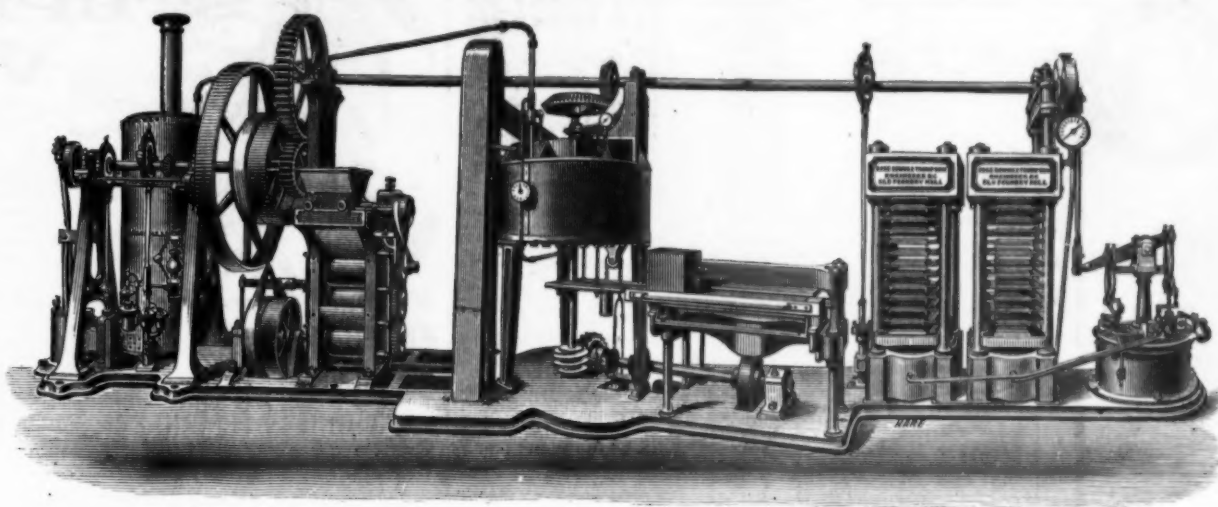
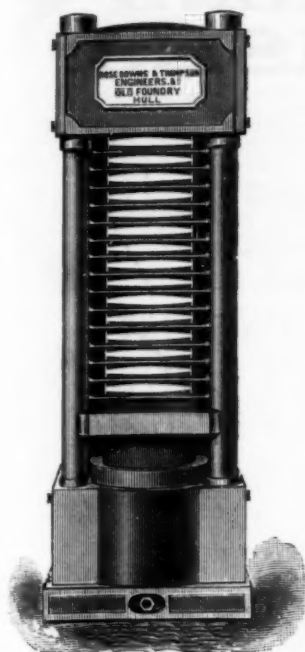
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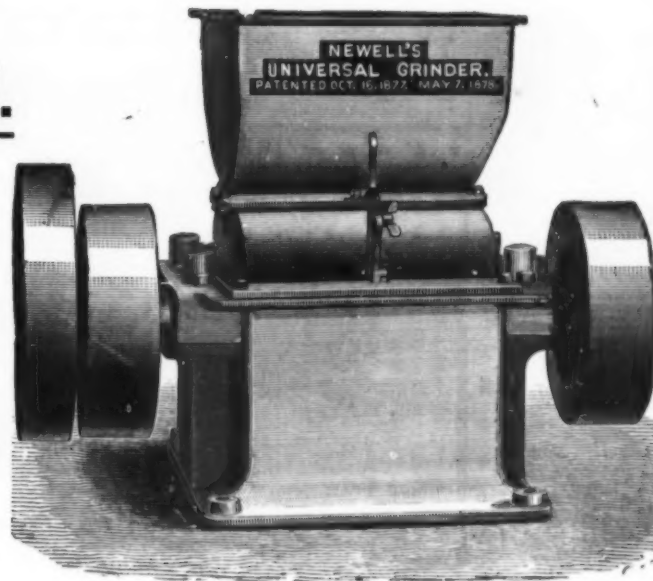
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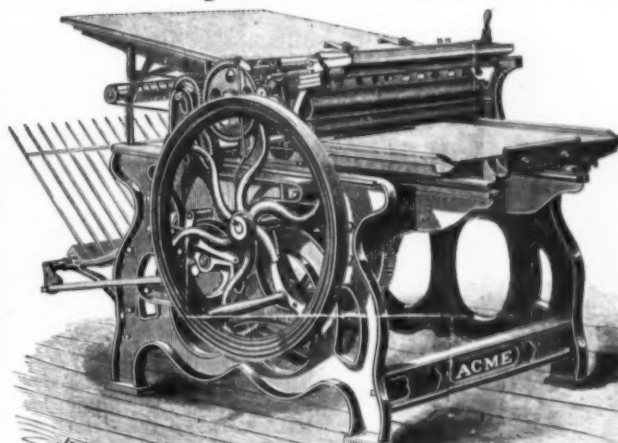
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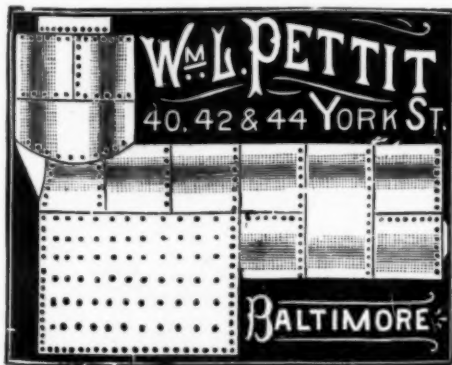
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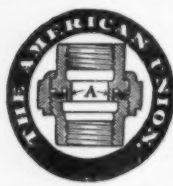
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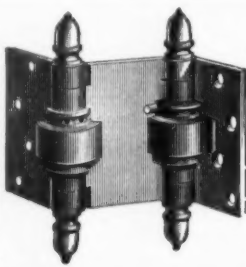
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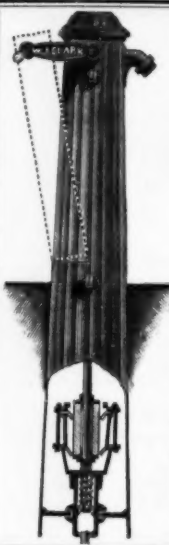
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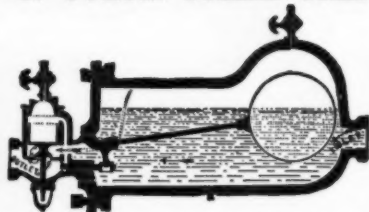
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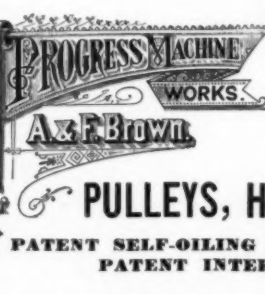
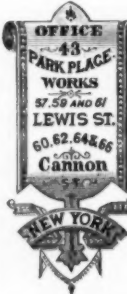
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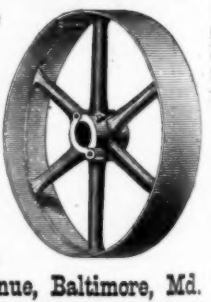
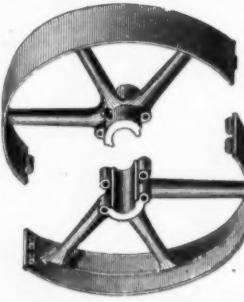
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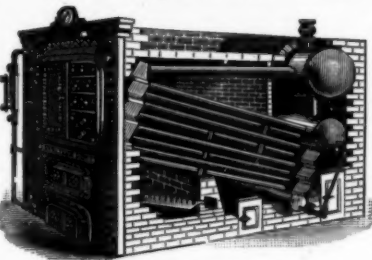
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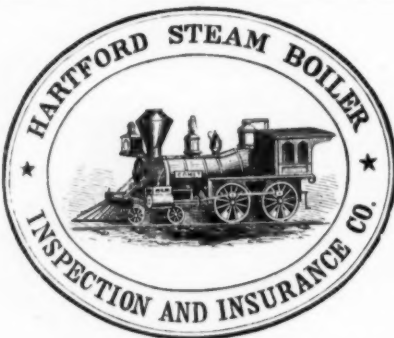
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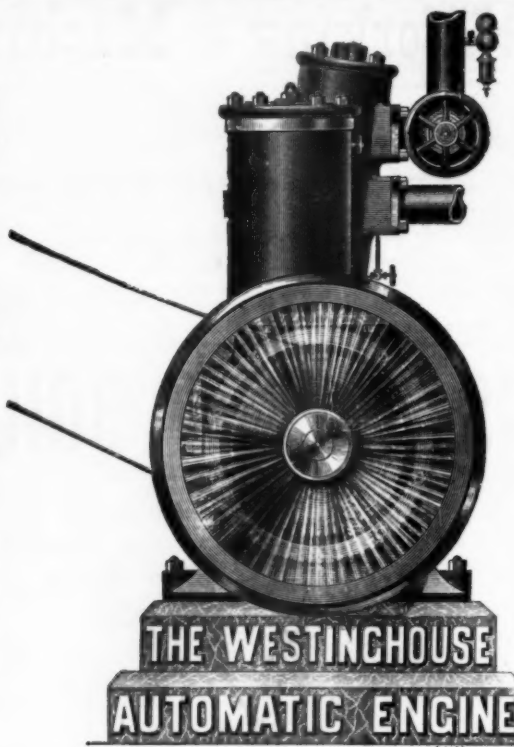
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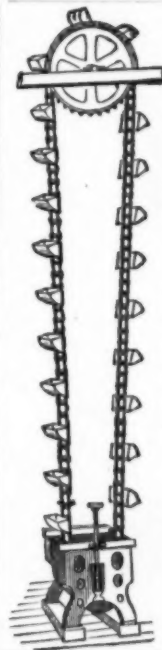
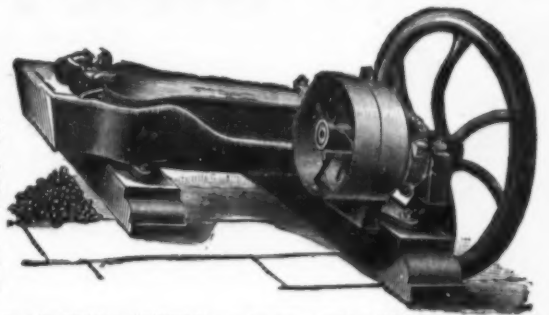
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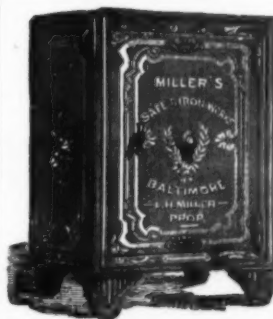
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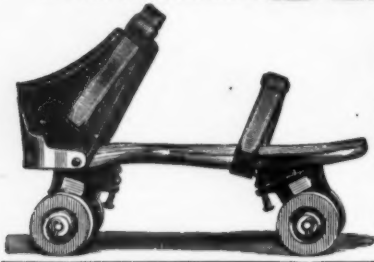
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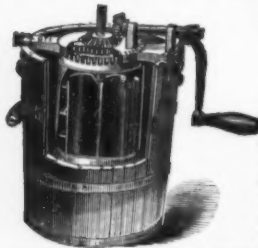
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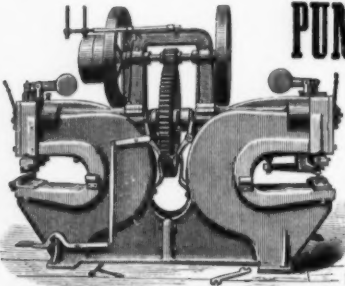
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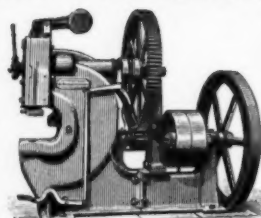
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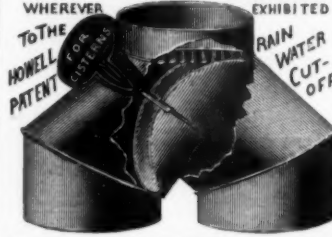
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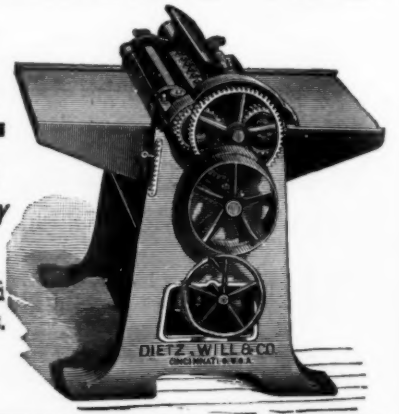
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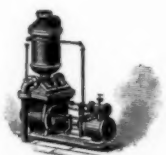
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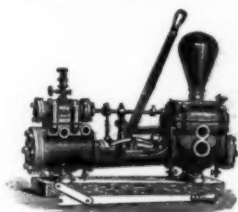
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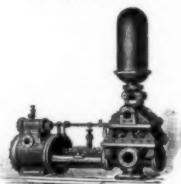
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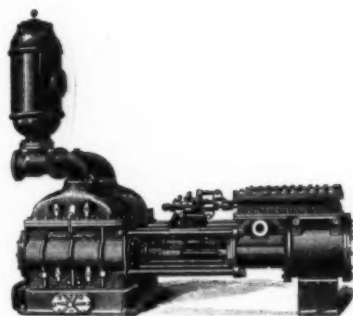
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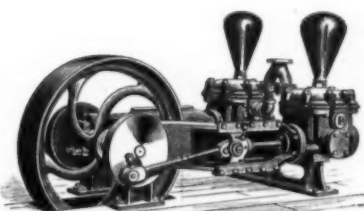
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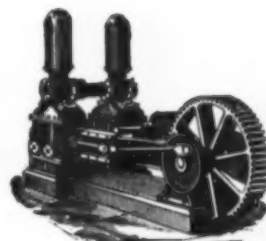
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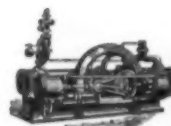
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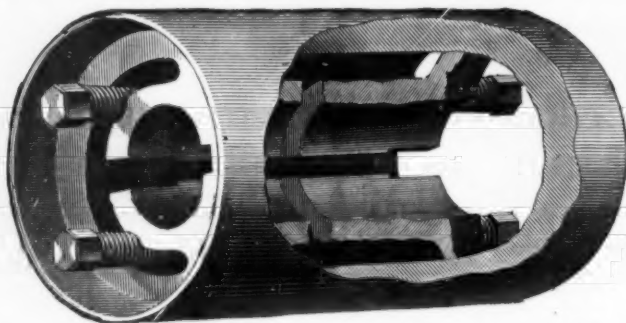
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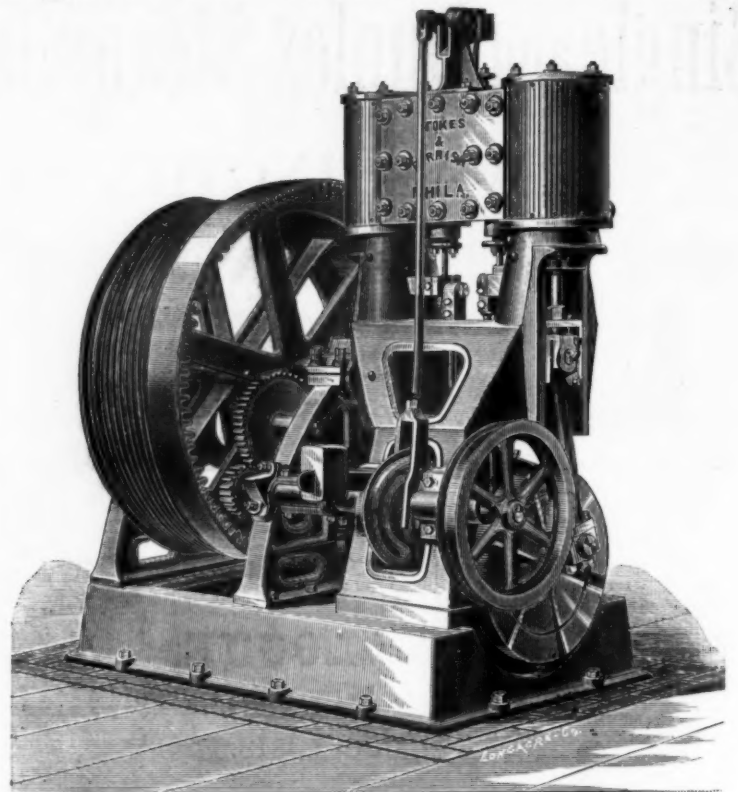
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